Bibliography of

Egyptian Medical Research on Cardiac Arrhythmias

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Third Zagazig University Conference of Cardiology (28.12.1995)
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1995

Preface

Professor

Mesbah T. Hassanien

Co-President of the conference

It is a pleasure to introduce this Bibliography of Egyptian Medical Research on Cardiac arrhythmias.

I hope that this Bibliography will be very essential for Public Health & Medical Education Foundations, as well as for researchers and scientific research authorities. The effort done in this work has been going on very active and rapid way to enable us to introduce it on the occasion of The Third Zagazig University Conference of Cardiology (28.12.1995) . Editor's previous experience and background in editing& publishing enable him to put a dynamic plan for such national work with the possibility of renewing, adding, omitting, rearangement of such data.

Motivation has been encourged by the great need for such work. It seems quite unfair to our people to be aware of the recent international research through the international medicus index, while they are ignorant of the current research done in our very own country and even city. This led to unneccessary repetition of research papers, with resultant waste of effort, time & money as well as lack of utilization of previous data. There have been too many examples for such waste which are very clear even in this Bibliography of Egyptian Medical Research on Cardiac arrhythmias. The hope of completing and extending this work depend on the cooperation of many national organaizations .

Mesbah T. Hassanien

Bibliography of Egyptian Medical Research on Cardiac arrhythmias

Part I:

Original papers

Original Title	**Experimental study of the antiarrhythmic activity of midazolam, clonidine and their combination against epinephrine induced arrhythmia**
Author	Abou-El-Azm, Suhair
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The Medical Journal of Cairo University. v62 n3 suppl p247-258,
Date of publication	9/1994
Abstract	The present study was performed to demonstrate the antiarrhythmic and hemodynamic effects of midazolam and clonidine and their combination together on epinephrine induced arrhythmia in anasthetized cats. Furthermore, the nature of interaction between them was investigated by using the selective benzodiazepine antagonist flumazenil. The arrhythmogenic dose of epinephrine (ADEI) was determined prior to drug infusion, 2 hours after the start of infusion of the drug (ADE2) and following i.v. administration of 1 mg/kg flumazenil (ADE3). Results showed that ADE increased from baseline values of 30 ± 5 to 90± 8 mug/kg following midazolam infusion (40 mug/kg/min) and returned to 30 ± mug/kg following flumazenil administration (1 mg/kg). Midazolam produced a reduction of systolic and diastolic blood pressure by 15.4% and 10%, respectively with no change in the heart rate. Meanwhile, clonidine infusion (0.5 mug/kg/min) increased ADE from 30 ± 7 to 150 ± 6 mug/kg and was not affected by flumazenil injection. It also produced significant bradycardia only. As regards the combination of midazolam and clonidine, the ADE increased from 30 ±5 to 160±5 mug/kg and also was not affected by flumazenil injection. The hemodynamic parameters showed significant increase in both systolic and diastolic blood pressure and significant bradycardia. In conclusion, it was found that midazolam and clonidine have antiarrythmic activity against epinephrine induced arrhythmia by different mechanisms. The pharmacological antagonism of midazolam by flumazenil could suggest that at least part of its antiarrhythmic effect is mediated via benzodiazepine receptores. The combination of both drugs did not show any difference in antiarrhythmic activity of clonidine alone; an effect which should be further investigated. The hypertension occurring from the combination should also be explained or investigated

Third Zagazig University Conference of Cardiology (28.12.1995)

Original Title	**Cardiac arrhythmias in Egyptian infants and children ; An etiologic study**
Author	Hamed, Muhammad. et al.
Author affiliation	Zagazig Univ. Banha Branch (Egypt). Fac. of Med.
Source	The Medical Journal of Cairo University. v61 n4 p901-912
Date of publication	Dec 1993
Abstract	113 Egyptian infants and children aged between 6 days and 13 years were studied for the type and cause of cardiac arrhythmias they developed. Supraventricular arrhythmias were found in 38.9% of cases, conduction disorders in 51.3% and ventricular arrhythmias in 21.2% of cases. Supraventricular tachycardia was the commonest being found in 30.1% of patients followed by the first and second degree atrioventricular blocks which constituted 24.8% of all cases. About 36.3% of all arrhythmias were idiopathic and 55.8% of patients had abnormal hearts. The commonest cardiac lesions detected were congenital heart defects (31.9% of cases) and rheumatic carditis and rheumatic heart disease (10.6% of cases) followed by cardiomyopathy (7.1%) and myocarditis (6.2%). Cardiac surgery for congenital heart disease appeared to be an important cause of cardiac arrhythmias being responsible for about 14.2% of arrhythmias in the patients.

Original Title	**Verapamil, diltiazem and propafenone cardioprotective effect on the adrenaline induced arrhythmia ; Comparative experimental study**
Author	El-Halawani, Samya. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The New Egyptian Journal of Medicine. v8 n4 p931-939, Apr. 1993
Date of publication	Date of publication : 1/4/ 93
Abstract	A comparative study between the effects of verapamil, diltiazem and propafenone (calcium channel blockers) was done on the carotid arterial blood pressure with simultaneous ECG recording as well as on the adrenaline induced arrhythmia in anesthetized intact cat. Verapamil, diltiazem and propafenone produced a dose-related decrease of the arterial blood pressure with dose related bradycardia in chloralosed anesthetized cats. The potency ratio between verapamil and diltiazem was 26 while that between verapamil and propafenone was 39. As regards the antiarrhythmic effects of these drugs, verapamil was found to increase significantly the minimal arrhythmogenic dose of adrenaline as well as diltiazem and propafenone

Original Title	**Asymptomatic arrhythmias in patients on chronic hemodialysis**
Author	Esmaeil, Zakareya. El-Arrousi, Wafa. Qadah, Ayman
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The New Egyptian Journal of Medicine. v8 n2 p532-534, Feb 1993
Date of publication	1/2/1993
Abstract	A high incidence of cardiac arrhythmias in hemodialysis patients has associated with increased incidence of sudden death. 10 patients (4 males and 6 females), asymptomatic non-diabetic or regular hemodialysis treatment for a period ranging from 6 to 132 months, whose age ranged between 18 and 62 years, by 24 hours Holter ECG monitor, starting 2 hours before dialysis, and lasting for 6 hours Qf dialysis, as well as 16 hours then after, were studied. Three patients developed premature ventricular contractions (PVCs) of Lown's grade I, and infrequent premature atrial contractions (PACs). One had only infrequent PACs and another had a run of PACs. None of the patients had serious arrhythmia nor ischemic episodes. The occurrence of cardiac arrhythmias showed no specific period of predominance, and was neither related to ischemic myocardial episodes nor to the patients age, sex, duration on dialysis, left ventricular hypertrophy (LVH), blood urea nitrogen (BUN), serum creatinine, sodium, potassium, calcium and phosphorus. It is concluded that chronic hemodialysis per se does not enhance the occurrence of cardiac arrhythmias, and that there was no way to predict patients of increased risk.

Original Title	**Serum potassium and magnesium concentration as a risk factor of ventricular arrhythmias early in acute myocardial infarction**
Author	El-Beltagi, Sherif. et al.
Author affiliation	Alex. Univ. (Egypt). Fac. of Med.
Source	Bulletin Alexandria Faculty of Medicine. v28 pl523-1528, Dec 1992
Date of publication	12/ 92
Abstract	Twenty patients admitted to hospital with acute myocardial infraction (AMI) were subjected to Holter monitoring and assessment of serum potassium and magnesium levels. The correlation of the incidence of ventricular arrhythmias to serum level of K+ and Mg ++ were analyzed. The study concluded that serum potassium concentration is an independent inverse predictor of the occurrence of ventricular tachycardia and complex PVCs in AMI. There was no relation between serum magnesium and incidence of ventricular arrhythmias.

Original Title	**Study of arrhythmia in some Egyptian children using different noninvasive techniques**
Author	Aumran, Salwa. Ashour, Zaynab
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The New Egyptian Journal of Medicine. v6 n4 p972-977, Apr 1992
Date of publication	Apr 1992
Abstract	This study was conducted on 10 patients who presented with different types of arrhythmias detected on routine 12 lead ECG and long strip lead 2. Their ages ranged from 8 days to 12 years. They were 6 females and 4 males. All of them had been subjected to good history taking and full clinical examination, standard 12 lead ECG with long strip lead 2, echocardiography and holter monitoring. It was found that 80~ of the cases had acute onset of symptoms, Dyspnea and syncope were the presenting symptoms in 30% and 20% respectively, while 10% (one case) was symptomless. There was -ve family history in all the cases, -ve consanguinity in 70% and normal perinatal history in 60%. Clinical examination revealed tachycardia in 40~ and bradycardia in 20% normal blood pressure in all the cases, cardiomegaly in 30% and congective heart failure in 20%. Echo showed normal heart anatomy and dimensions in 60% cardiomyopathy in 2 cases, one case with Fallot's tetralogy and RV enlargement in 4 cases ECG showed that 3 cases had S.V.T., 2 had premature ventricular contractions, 1 with sick sinus syndrome, 1 with ventricular tachydysrhytmia, 1 with 3rd degree heart block, 1 white wolf Parkinson with syndrome and one with dropped beat. Holter 24 hours monitoring revealed the same findings as long strip ECG.

Original Title	**A study of arrhythmias in dilated cardiomyopathy and their relation to the left ventricular systolic function**
Author	Surour, K. et al.
Source	The Egyptian Heart Journal. v39 p79-95, Feb 1992
Date of publication	Feb 1992
Abstract	Twenty patients with idiopathic dilated cardiomyopathy (IDC) and ten patients with ischemic cardiomyopathy IC were subjected to twenty four hour ambulatory electrocardiogram. The diagnosis was based on clinical, laboratory, Echocardiography and cardiac catheterisation findings. It was concluded that complex ventricular arrhythmias are common in patients with IDC and patients with IC. The incidence and severity of ventricular arrhythmias appear to be related to the extent of the left ventricular systolic dysfunction.

Original Title	**Comparative study between the effects of flecainide and digoxin in the management of atrial arrhythmias after open heart surgery**
Author	Wafa, Samir S. Amer, Sameh. Abdel-Halim, Saeid
Source	The Egyptian Heart Journal. v39 pl55-169, Feb 1992
Date of publication	Feb 1992
Abstract	The antiarrhythmic efficacy of intravenous flecainide and intravenous digoxin was assessed in 29 patients (26 men), age 43 to 73 (63 + or 7) years who developed atrial arrhythmias in the first 96 hours after coronary artery bypass grafting. Twenty seven had atrial fibrillation and 2 had atrial flutter. Patients were entered into the study if the arrhythmia persisted for at least 15 minutes with a ventricular rate > 120 beats/min. 15 patients were randomized to flecainide (group I) and 14 to digoxin (group 2). Flecainide was given as a bolus of 1 mg/kg over 10 minutes followed by an infusion of 1.5 mg/kg for 1 hour and then 0.25 mg/kg/hr for the rest of the study period (24 hours). Digoxin was given as 3 bolus doses (0.5 mg followed after 6 and 12 hours by 0.25 mg). In both groups, 10 mg of verapamil was given intravenously after 45 minutes if the arrhythmia persisted with a mean ventricular rate > 100 beats/min. The antiarrhythmic efficacy was assessed by 24 hour Holter monitoring and frequent 15-second rhythm strips. Within 45 minutes control of arrhythmia, which was maintained for the rest of the study period, was achieved in 10 to 15 patients in group 1 and 2 of 14 in group 2 (p< 0.01). Nine of 15 reverted to sinus rhythm in group 1 compared to O of 14 in group 2 and 1 of 15 remained in arrhythmia with a controlled ventricular rate in group 1 compared to 2 of 14 in group 2. Within 1 hour arrhythmia was controlled in 12 of 15 in group 1 compared to 3 of 14 in group 2 (p < 0.01). Ten of 15 reverted to sinus rhythm in group 1 compared to 0 of 14 in group 2 and 2 of 15 remained in arrhythmia with a controlled ventricular rate in group 1 compared to 3 of 14 in group 2. There were no serious adverse effects. Intravenous flecainide is safe and more effective than intravenous digoxin for recent onset atrial tachyarrhythmias after bypass grafting.

Original Title	**Efficacy of intravenous amiodarone in treatment of arrhythmia after adult cardiac surgery**
Author	Abdel-Halim M. S. et al.
Author affiliation	Tanta Univ. (Egypt). Fac. of Med.
Source	The New Egyptian Journal of Medicine. v6 nl p281-286, Jan 1992
Date of publication	Jan 1992
Abstract	The response of cardiac arrhythmias to amiodarone therapy was studied in 58 cardiac surgery patients with pre or post-operative arrhythmia. Patients were given amiodarone intravenously in a dose of : 5 mg/kg body weight followed by 400 mg orally after 2 hours. The serum amiodarone and its metabolite, desethylamiodarone were monitored every two hours. The time at which reversion to sinus rhythm occurred was recorded in each patient. About 46~ of patients with postoperative atrial arrhythmia reverted within the first 2 hr, and 20~ reverted at 4 hr, after amiodarone administration. While in patients with preoperative atrial arrhythmias only 18~ reverted at 2 hr, and 32~ at 4 hr. Cases with ventricular arrhythmias, although few, still show a longer delay in response to the amiodarone treatment. The earlier response of cases with postoperative atrial arrhythmias could be correlated to serum amiodarone level, the more established preoperative arrhythmias conceivably required longer time to respond. Apart from, mild hypertension, nausea, tremors and headache, no life-threatening toxic manifestation has occurred with the present amiodarone regimen.

Original Title	**Effect of monensin sodium on reperfusion induced arrhythmias in the isolated rat heart**
Author	Zakareya, M. N. M. Fahmi, A. El-Fayoumi, H. M. M.
Author affiliation	Zagazig Univ. (Egypt). Fac. of Pharm.
Source	Journal of Biomedical Sciences and Therapeutics. v8 pt4 p98-110,
Date of publication	1992
Abstract	The present investigation studied the effect of monensin sodium in three dose levels (10 -7, 10 -6 and 10-5M) on reperfusion induced of premature ventricular contractions (PVCs), the incidence, onset and duration of both ventricular tachycardia (VT) and fibrillation (VF). Monensin sodium in low concentration (10-7M) did not significantly affect any parameter of reperfusion induced arrhythmias. In the concentration of 10-6M, monensin sodium has increased the number of PVCs, prolonged the duration of VF and had a tendency to increase the incidence of VF. Monensin sodium when used in a relatively higher concentration (10-5M) had increased the number of PVCs and the incidence and duration of ventricular fibrillation. This study revealed that monensin sodium utilized by humans who consume products of animals fed on this agent may increase the severity of arrhythmias resulting from reperfusion of ischemic myocardium.

Original Title	**Ambulatory electrocardiography versus tredmill stress testing in the evaluation of patient after uncomplicated myocardial infarction ; II Assessment of the arrhythmic potential**
Author	El-Refaei, Medhat. et al
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The Egyptian Heart Journal. v36 p25-34, Feb 1991
Date of publication	Feb 1991
Abstract	31 patients were studied 6 weeks after apparently uncomplicated myocardial infarction (MI) by treadmill exercise testing (TM) and 48 hours ambulatory electrocardiographic monitoring (AEM) to identify the comparative value of either or both methods in detecting cardiac dysrrhythmias during the post hospital phase. Results showed that AEM was, in general, more superior than TM in unmasking the incidence of ventricular and atrial arrhytmias ; while TM revealed exercise, induced ischemia, associated ventricular arrhythmia in 3 patients that were not detected by AEM. In view of the lethal potential for serious ventricular arrhythmia in the late hospital phase after acute MI, the two methods seem to complement each other with complex arrhythmia detected on AEM and exercises, induced ischemia, associated arrhythmia on TM constituting a frank indication for further studies and management in a patient 6 weeks after acute apparently uncomplicated MI.

Original Title	**Cardiac arrhythmias in patients with mitral**
Author	**valve prolapse**
Author affiliation	Muftah, Hasan A. et al.
Source	Menia Unvi. Fac. of Med.
Date of publication	Assiut Medical Journal. v14 n2 p241-244.
Abstract	April 1990

20 patients with mitral valve prolapse were studied by 24 hours ambulatory (Holter) monitoring to detect arrhythmia and conduction abnormalities. Sixteen patients (80%) were found to have different form of arrhythmias, 10 f them complained of palpitation. Premature ventricular beats were found in 12 patients (60%) and premature atrial beats in 7 patients (35%). Combination of both types of premature beats was found in 5 patients. Three patients (15%) had functional premature beats. Sinus arrhythmia was found in 5 patients. three patients (15%) had functional premature beats. Sinus arrhythmia was found in 5 patients (25%), sinus tachycardia and sinus bradycardia each were found in 2 patients (10%). One patient had a wandering pacemaker and another had intermittent right and left bundle branch block.

Original Title	**Cardiac arrhythmias in hospitalized patients with chronic obstructive pulmonary disease**
Author	Sadeq, Ekram. El-Shimi, Wafaa S. Warda, Mamdouh A.
Author affiliation	Tanta Univ. (Egypt). Fac. of Med.
Source	The Egyptian Heart Journal. v33 p63-73, Feb 1990
Date of publication	Feb 1990
Abstract	Previous reports on the occurrence of arrhythmias chronic obstructive pulmonary disease (COPD) have been based on the analysis of routine electrocardiograms. Probably for this reason, there has been wide variation in their reported frequency. Since the disturbances are usually intermittent, this study was performed to overcome this problem by continuous 24 hours Holter Monitoring of the electrocardiogram in 20 hospitalized patients. Arrhythmias occurred in 95 percent of the patients and were considered to be of sufficient severity to require therapy in 80 percent. Because of the deleterious effect of arrhythmias on cardiac output and tissue oxygenation and} their relationship to the occurrence of sudden death, it was concluded that monitoring of the electrocardiogram should be carried out on all patients hospitalized for chronic obstructive pulmonary disease so that significant arrhythmias can be recognized and treated.

Original Title	**Intramuscular lidocaine for the prevention of lethal arrhythmias in the early phase of acute myocarial infarction**
Author	Rezq, Husayn H. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The Egyptian Heart Journal. v33 p87-95, Feb 1990
Date of publication	Feb 1990
Abstract	A prospective single blind randomized placebo-controlled trial was conducted to detect the effect of intramuscular (IM) lidocaine (400 mgm). On the incidence of lethal ventricular arrhythmias early after acute myocardial infarction (MI), patients received the injection on admission, followed by electrocardiographic (ECG) monitoring for two hours. The standard work-up was performed for all patients. The two groups.receiving lidocaine and placebo, respectively were well matched as regards age, sex, onset-to-admission interval, site of ifraction, risk factors and prognostic index for survival. There was an overall favorable response to IM lidocaine which started to manifest at 15 min. and reached statistical significance from 30 to 120 min. ventricular premature depolarizations (VPDs) and ventricular tachycardia (VT) were significantly less frequent in the lidocaine group. Though ventricular fibrillation (VF) occurred only in the placebo group, the incidence was too low (3.75%) to reach levels of statistical significance. The incidence of death AND VF (potential death) collectively was, however, significantly higher in the placebo group. The difference was more manifested in the early admission subgroup. Minor central nervous system (CNS) and cardiovascular side-effects were encountered with IM lidocaine. It is concluded that IM lidocaine is potentially useful in the control of ventricular arrhythmias in the early phase of acute myocardial infarction, probably reduces mortality and is potentially useful in the control of pre-admission arrhythmias.

Original Title	**Cardiac arrhythmias during nasal surgery ; A comparison of halothane and isoflurane**
Author	Lashin, Nabil. Husayn, Abdel-Fattah A. S.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The New Egyptian Journal of Medicine. v4 nl p527-530, Jan 1990
Date of publication	Jan 1990
Abstract	40 patients undergoing bilateral inferior turbinectomy received halothane anesthesia during operating on one side and isoflurane during operating on the other side. Adrenaline (10 ml 1/200,000) was injected in each side. The end tidal PCO2 did not differ significantly between sides. A significantly higher incidence of arrhythmias occurred during halothane, anesthesia compared with isoflurane. This significant difference occurred when halothane was administered for the first side but not with the reverse order. Frequent ectopic beats occurred during halothane anesthesia decreased significantly within 3 minutes after shift to isoflurane anesthesia. Heart rates tended to be more rapid with isoflurane than with halothane.

Original Title	**Effect of disopyramide on epinephrine-induced arrhythmia under halothane anaesthesia in dogs**
Author	Fahmy, Nadia A. M. El-Debba , Mohamed. Moursy , Mahmoud G. et al.
Author affiliation	Alex. Univ. (Egypt). Fac. of Med.
Source	Bulletin Alexandria Faculty of Medicine. v25 n3 p863-870, Jun 1989
Date of publication	Jun 1989
Abstract	This study was carried out on twenty mongrel dogs anaesthetized by the epinephrine induced arrhythmias on these dogs. They were divided into two equal groups, a therapeutic group (10 dogs) ; they received disopyramide (2-3 mg/kg) to treat the developed dysrrhythmias induced by epinephrine (130 mu g /min) and a prophylactic group (10 dogs); they received disopyramide (2.9 mg/kg) in advance to against the development of epinephrine (130 mu g / min) induced dysrrhythmias. The therapeutic administration of disopyramide succeeded to decrease signif,icantly the epinephrine induced tachycardia (P less than) and to revert the developed dysrrhythmias (ventricular premature beats) with cure rate 90~, the 10~ failure being a case of ventricular fibrillation. The prophylactic administration of disopyramide maintained the sinus rhythm in presence of epinephrine challenge with a prophylactic success of 10% but it did not guard against the increase in heart rate induced by epinephrine (P less than 0.001). It was recommended from the present study to use disopyramide in the anaesthetic field whenever there is a risk of dysrhythmia develops due to epinephrine-halothane interaction.

Original Title	**Scanning electron microscopy of the endocardium ; A new technique for locating arrhythmogenic foci**
Author	Selim, Nadya M. Krush, Sanaa S. Ahmad, Muhammad
Author affiliation	Assiut Univ. (Egypt). Fac. of Med. (Selim)
Source	The Egyptian Heart Journal. n32 p11-22, Oct 1989
Date of publication	Oct 1989
Abstract	The endocardium of the atrial appendages and mitral valves of 16 patients with rheumatic heart (9 in AF and 7 in SR) resected during mitral valve replacement were scanned. SEM of the endocardium showed the individual endothelial cells in patients with sinus rhythm (SR) to be basically almost similar in size and shape, polygonal, sometimes slightly elongated, flat with elevated nuclear region or bombayed. The endothelial surface was either smooth or showed few short microvilli and microplice ; the cell boundaries were outlined by beaded cytoplasmic projections. The intercellular junctions were generally tight and well delineated. With atrial fibrillation (AF) although some areas of endothelial cells appeared similar to those of patients with SR the following changes were met with ; elevation, elongation and sometimes disorientation of the endothelial cells longer microvilli ; formation of microvilli-rich cell clusters and small to huge hollow surface defects. In addition, interruption of the intercellular junctions with various degrees of severity in several foci was found. Rupture and sloughing ranged from focal areas of few cells to larger areas of several cells, but are generaly localized. Endocardial surface changes in both groups of patients were different, although they shared the same rheumatic etiology and have pulmonary hypertension.

Original Title	**Cardiac arrhythmia during closed mitral commissurotomy**
Author	Hamdi E.A. et al
Author affiliation	Alex. Univ. (Egypt). Fac. of Med.
Source	Tanta Medical Journal. v17 nl p41-67, Jun 1989
Date of publication	Jun 1989
Abstract	The study included 20 patients with rheumatic mitral stenosis ; 12 females and 8 males. The patients were subjected to full clinical evaluation and laboratory investigations. Several types of arrhythmias were recorded during each step in the operation. There were six main types of relevant arrhythmias : Supraventricular tachycardia occurred in 35%, junctional rhythm in 5%, premature ventricular contractions in 20%, couplets in 5%, multiplets in 20% and ventricular tachycardia in 50% of patients. It was evident that among the significant premonitoring data that make one suspect the occurrence of serious arrhythmias are atrial fibrillation and criteria of right ventricular overload. Ventricular hyperirritability, evident from frequent premature ventricular contractions, couplets, multiplets and ventricular tachycardia was seen more often in patients who have taken digitalis and diuretics for a long time and are likely to have a subnormal total body content of potassium.

Original Title	**Study of the effect of intravenous amiodarone in the treatment of different types of acute critical arrhythmias**
Author	Abou-Khedr, A. M. Ghannam, H. S. Kassem, Ali Nasrat. et al.
Author affiliation	Alex. Univ. (Egypt). Fac. of Med. Internal Med. Dept.
Source	Journal of the Medical Research Institute. v :10 nl pl97-210, 1989
Date of publication	1989
Abstract	The present study was carried out on forty patients (36 males & 4 females) with acute critical arrhythmias in order to evaluate the effect of intravenous amiodarone in the treatment of this arrhythmias. The present study revealed that I.V. amiodarone reverted 66.6% & 100% of patients with supraventricular tachycardia to sinus rhythm after 24 hours & 48 hours respectively. The drug slowed the rhythm in patients with atrial flutter. It revealed 25% & 50% of patients with atrial fibrillation to sinus rhythm after 24 hours & 72 hours respectively & slowed the rhythm in the remaining 50% of patients. I.V. amiodarone reverted 16.6%, 25% & 66.6% of patients with ventricular premature contractions to sinus rhythm after 24 hours, 48 hours & 72 hours respectively & had reduced it in the remaining 33.3% of patients. The underlying mechanism is mainly prolongation of the Q-T interval

Original Title	**Arrhythmias in the first 24 hours after acute myocardial infarction**
Author	Ragheb, H. Kholief, A. Hassanein, M. et al.
Author affiliation	Alex. Univ. (Egypt). Fac. of Med.
Source	Bulletin Alexandria Faculty of Medicine. v24 n2 p413-423, Jun 1988
Date of publication	Jun 1988
Abstract	20 patients with acute myocardial infarction were studied within the first 24 hours of onset of symptoms. They were 70% males & 30 % years. The 24 hours Holter electrocardiographic monitoring revealed a high incidence of arrhythmia. Sinus tachycardia in 70%, bradycardia in 10%, supraventricular tachycardria in 5% & atrial premature beats in 70%. Ventricular arrhythmias occurred in 95% of cases & all of them had prematur,e ventricular contractions. Ventricular tachycardia occurred in 40% of cases. The relationship between incidence of arrhythmias & duration of pain showed that the highest incidence occurred after one hour from the onset of symptoms except bradycardia which occurred after 4 hours. Smokers showed significantly high incidence of complex PVCs &,VT. There was no significant correlation between resting ECG & the occurence of arrhythmias. As regards the site of infarction all types of arrhythmias occurred with inferior infarction while bradycardia was associated with anterior & combined infarctions. Presence of VT does not carry poor prognosis.

Original Title	**A comparative study of various antiarrhythmic drugs on early arrhythmias that follow acute coronary artery ligation in dogs**
Author	Mikhail, A. R. El-Sherbini, H. Hashish, A. et al.
Author affiliation	Alex. Univ. (Egypt). Fac. of Med. Physiology Dept.
Source	Journal of the Medical Research Institute. v9 nl pl9-34, 1988
Date of publication	1988
Abstract	This study aims to compare the effect of various antiarrhythmic drugs "lignocaine, propranolol, amiodarone and verapamil" in preventing or reducing the incidence of the early arrhythmias that follow acute coronary artery ligation. 25 dogs were divided into five groups; the first group served as a control and the other four as test groups. Heart rate and ECG changes were recorded in all groups. There was a significant decrease in heart rate 5 & 20 minutes after coronary artery ligation in the groups injected with propranolol, amiodarone and verapamil. ECG tracing showed that all antiarrhythmic drugs used were able to prevent ventricular fibrillation and were successful in reducing ventricular tachyarrhythmia, except lignocaine. The results are discussed and explained.

Original Title	**The arrhythmogenic effect of diuretic-induced hypokalemia in hypertensive patients, with or without left ventricular hypertrophy**
Author	El-Arousi, W. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	The Bulletin of the Egyptian Society of Cardiology. v29 Jun 1988
Date of publication	Jun 1988
Abstract	In this study, the effects of short term (2-8 weeks) chlorthalidone and the induced hypokalemia on the ectopic ventricular activity in ten hypertensive patients were examined. The mean age was 37.7±5.96 years (mean±SD). There was one female and nine males. The mean SBP was 172±18.1 mmHg and DBP was 115±7.1 mmHg. The 24 hour Holter monitoring was used, and the treadmill exercise testing to evaluate cardiac arrhythmias. The level of serum magnesium in all patients was estimated. There was no increase in the ectopic ventricular activity neither before nor after the induced hypokalemia, in all patients except in one (10%). This increased activity of premature ventricular beats of grade 1 was abolished after the correction of hypokalemia. The serum potassium level dropped from a mean of 4.12±0.37 mEq/L of 2.83 ± 0.38 mEq/L (p <0.005), while the serum magnesium level did not change, mean of 20.84 + or2.22 mEq/L (P.N.S.). There was no corelation between the ventricular mass index, mean of 146.2±31.6 mg/m2 (P N.S.), measured by M mode Echocardiography and the increased ventricular ectopic activity. It was concluded that the hypokalemia induced by diuretic therapy does not essentially produce increase in the ventricular arrhythmias in hypertensive patients, and that the left ventricular hypertrophy had no influence either.

Original Title	**Ouabain induced arrhythmias and cholinergic mechanisms**
Author	El-Fayoumi, Hasan M. Abdel-Al, Muhammad. Abdel-Aziz,
Author affiliation	Zagazig University , Veterinary School
Source	Zagazig Veterinary Journal. v15 n2 pl84-197, Jun 1987
Date of publication	Jun 1987
Abstract	Not avalible.

Original Title	**Hemodynamic effect of arrhythmias which occur during cardiac catheterization**
Author	Ahmad, Aly. et al.
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med. Zagazig Univ. Banha Branch (Egypt). Fac. of Med.
Source & Date	Banha Medical Journal. v 2 n3 pl7-23, Sep 1985
Abstract	Not avalible.

Original Title	**The relation between the blood sugar level and the incidence of arrhythmias in acute myocardial infraction**
Author	Guiruis, Amira I. Moheb, M. Sedhom, S. R.
Author affiliation	El Sahel Teaching Hospital (Cairo)
Source & Date	The Journal of the Egyptian Medical Association v68 p65-68, 1985
Abstract	207 patients with recent myocardial infraction were studied. Blood sugar level was done immediately after admission and monitored for variable periods of 1-3 weeks after the onset of infarction. The patients were divided into six groups according to the blood sugar level and the occurence of arrhythmias was represented as a percentage of the number of patients in each groups. The relative frequency and percentage of arrhythmias in each group as well as the frequency and percentage of occurence of individual types were present.

Original Title	**Prevalence of cardiac arrhythmias in children**
Author	Kassem, A. Samir Madkour, Ahmed A. Amer, Said A.
Author affiliation	Alexandria Univ., (Egypt). Faculty of Medicine. Pediatrics Dept.
Source & Date	The Bulletin of Egyptian Society of Cardiology v: XXI pl3-17, Oct 1982
Abstract	1000 infants and children were examined clinically and electrocardiographically for the prevalence of cardiac arrythmias among children.

Original Title	**Comparative study of the effect of mexiletine and lidocaine in the treatment of experimentally adrenaline and ouabain induced arrhythmias**
Author	Abdel-Al, Sayed. et al.
Author affiliation	Al-Azhar Univ., Cairo . Fac. of Med.
Source & Date	Journal of Biomedical Sciences and Therapeutics. v 10 pt 6 pl-15, June 1994
Abstract	The purpose of this study was to assess the effect of mexiletine against lidocaine on the experimental dysrhythmia induced by adrenaline and ouabain in anesthetized dogs. Mexiletine (2.6 mg/kg) and lidocaine (3 mg/kg) were capable of reversing adrenaline induced arrhythmias in all groups of dogs, while mexiletine (1.3 mg/kg) and lidocaine (2 mg/kg) cured only 33.33~ and 16.6% of the animals, respectively. In ouabain-induced arrhythmia, mexiletine (2.6 mg/kg) abolished the ventricular ectopic beats in all dogs and normal sinus rhythm was restored within four minutes in 50~ of the animals. The other 50~ showed -ve chronotropic effect which persisted for one hour. Lidocaine (3 mg/kg) showed also a curative effect in ouabain-induced arrhythmia, but 66.6~ of the dogs showed sinus bradycardia three minutes after drug administration which persisted for one hour. These results point to the importance of mexiletine in acute, as well as chronic therapy of cardiac arrythmias.

Original Title	**Cardiac arrhythmias during postural drainage and chest percussion of critically ill patients**
Author	Husni, Manal. Kurraa, Alaa-El-Din. Manssour, Muna
Author affiliation	Ain-Shams Univ., Cairo (EGY). Fac. of Med.
Source & Date	Ain-Shams Medical Journal. v45 nl-3 pl27-129, Jan-Mar 1994
Abstract	The present study demonstrates that postural drainage and chest percussion (PDP) can induce arrhythmia in some critically ill patients. Although no life threatening arrhythmias or major arrhythmias occurred, minor arrhythmias were noted in 3 out of 18 patients examined (16.6%). The type of arrhythmias observed were premature ventricular tachycardia (PVCs) and supraventricular tachycardia (SVT)

Original Title	**Ventricular arrhythmias in patients with hypertensive left ventricular hypertrophy**
Author	Muttawea, A. K.
Author affiliation	Al-Azhar Univ., Cairo (EGY). Fac. of Med.
Source & Date	The New Egyptian Journal of Medicine. v 9 n5 pl348-1353, Nov 1993
Abstract	In patients with hypertension, a pattern of left ventricular hypertrophy on the electrocardiogram is associated with a risk of sudden death in excess of the risk attributable to hypertension alone. The frequency of complex ventricular arrhythmias by means of 24-hours ambulatory electrocardiographic monitoring in 40 treated hypertensive patients was investigated, of whom 20 had no evidence of LVH on ECG (group I), and 20 had evidence of LVH on ECG of whom 10 without ST-T wave changes (group II), and 10 have ST-T wave changes (group III), and 10 normatensive control. The increase in the incidence of ventricular arrhythmia closely related to increase in the left ventricular mass and ST-T wave change. The clinical importance of these arrhythmias is uncertain.

Original Title	**Bupivacaine-lidocaine-epinephrine infiltration as local anesthetic in middle ear surgery : Arrhythmogenic and analgesic potential**
Author	Fahmi, Fahmi A. Ghunaim, Muhammad R.
Author affiliation	Mansoura Univ. (EGY). Fac. of Med.
Source & Date	Banha Medical Journal. V 10 n2 p197-204, May 1993
Abstract	Cooperation of patients undergoing middle ear surgery under local anesthesia provides feed back state guide, whereas integrity of facial nerve, as well as hearing, can be tested. Yet, infiltration of epinephrine to produce hemostasis, carries the danger to produce cardiac arrhythmia. This study was conducted to evaluate the arrhythmogenic and analgesic potential of bupivacaine-lidocaineepinephrine infiltration as local anesthetic in middle ear surgery. One hundred adult patients of either sex scheduled for middle ear surgery were included in this study. Local anesthesia was achieved by injection of 5-10 ml of a mixture of bupivacaine-lidocaineepinephrine (1:50.000). Patients were monitored as regard heart rate, systolic and diastolic blood pressures. Postoperative analgesia was also assessed. There were insignificant increase in heart rate and systolic blood pressure 5 minutes after infiltration which declined gradually near basal value. No arrhythmia was detected. Postoperative analgesia was excellent. In conclusion, bupivacainelideeaine-epinephrine local infiltration provides excellent surgical anesthesia, stable hemodynamics and eventual postoperative course with high degree of analgesia.

Original Title | **Ambulatory electrocardiographic recording ; V- Electrocardiographic changes during gastrointestinal endoscopic procedures in 100 cases**

Author | Hasan, Taher & Gumie, Muhammad

Source & Date | The New Egyptian Journal of Medicine.
v4 n2 suppl p145-149, Mar 1990.

Abstract | Holter monitoring was applied to 100 cases who underwent endoscopic procedures. All stages of the procedure before, after premeditations, during and at least one hour after the procedure were continuously recorded and analyzed. Three forms of electrocardiographic changes namely, sinus tachycardia (45%), arrhythmias (28%) and ST-T changes (18%) of cases, were detected. These changes were more frequent in the elderly compared to younger population (P< 0.01). The frequency of occurrence of these 3 forms of ECG changes showed marked reduction following premeditations and uprise during introduction of the endoscope. Various forms of dysrhythmias reported, most frequently PACs (42%), SVT (7%), S-A Block (10%), PVCs (28%), Complex PVCs (7%) of cases of dysrhythmias. No serious arrhythmia reported. ST segment changes were mostly non-pathological. Only two patients had ischemic ST segment depression which was normalized following withdrawal of the endoscope.

Original Title	**Analgosedation for extracorporeal shock wave lithotripsy : A retrospective study**
Author	Authman, Muhammad S. et al.
Source & Date	The New Egyptian Journal of Medicine. v7 n2 p465-471, Aug 1992
Abstract	2195 patients (male : female 1730 : 465) with kidney and ureteric stones were subjected to ESWL. The age range was 16-87 years and the physical status was ASA I, II, III. Patients were allocated into 7 groups according to whether no drugs given or morphine, pethidine, fentanyl (alone or in combination with midazolam) were used for pain relief and sedation. Pain score was evaluated according to the 4-point verbal scale that ranged from 0 (no pain) to 3 (intolerable pain). 55.48% of patients did not require any analgesia or sedation, while there was no statistically significant difference as regards the pain score among the other 6 groups receiving analgesia (+ sedation). There was no statistically significant difference among different groups as regards changes of blood pressure or heart rate. The total incidence of dysrhythmia was 28.9%, most of these were self limited required no treatment of these, only 2.2% had frequent PVCs (>5 pvcs/ min) where I.V. xylocaine was given and the lithotripter was shifted to ECG trigger mode. Nausea and vomiting were not reported but hiccough (2.5 - 2.7%) occurred in patients receiving midazolam.

Original Title	**Antidysrhythmic evaluation of drugs interacting with opioid receptors**
Author	El-Baroudi, Nadya H. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	The Medical Journal of Cairo University. v60 nl suppl pl-16, 1992
Abstract	The purpose of this study was to assess the effect of the opioid antagonist naloxone, agonist morphine and their combination on the dysrhythmia experimentally induced by adrenaline and ouabain in anes,thetized cats. Naloxone in doses of 1,2 & 4 mg/kg caused a dosedependent increase in the dysrhythmogenic dose of adrenaline (DD) from 21 ±3, 19 ±2 and 22 - 4 to 22 - 5, 31 - 3 and 95 ±5 ug/kg respectively. Morphine (0.5 & 1 mg/kg) produced statistically insignificant change in DD values.Combination of naloxone (4 mg/kg) and morphine (1 mg/kg) increased significantly DD from 19± 2 to 26 ± 2 ug/kg. But this increase was significantly less than that produced by naloxone and insignificantly different from the corresponding level in morphine treated cats. In ouabain induced dysrhythmia, naloxone (4 mg/kg) delayed significantly both the onset of dysrhythmia and time of death from 23±2 & 49±3 min. to 80 ±5 & 130±6 min. respectively. Similarly morphine (1 mg/kg) increased significantly both measures to 68±4 and 110 ±7 min. respectively. The group of cats treated with combined 4 mg/kg naloxone and 1 mg/kg morphine showed also significantly increase in both measures to 30 ±2 and 65±7 min. respectively. But this increase was significantly less than the corresponding levels induced by either drug alone. It is concluded that naloxone could protect against both types of dysrhythmias induced,but morphine could prevent ouabain induced dysrhythmias only. The antidysrhythmic effect was less when both drugs were given concurrently.

Original Title — **Cardiac arrest after myocardial infarction ; Incidence and results of resuscitation**

Author — Tawfiq , A. et al.

Source & Date — The Bulletin of the Egyptian Society of Cardiology. v29 Jun 1988

Abstract — 345 patients admitted to Agouza Coronary Care Unit with myocardial infarctions during the period of study from Nov. 1979 to Dec. 1985. They included 294 males and 51 females. Their age ranged between 32 to 76 years. 46% had anterior wall M.I., 29% had inferior wall M.I., 3% had subendocardial infarctions and 22% had multiple infarctions. The incidence of arrest after A.M.I. as well as the outcome of arrest were studied. The different parameters that could have influenced the outcome were also studied e.g. site of infarction, associated arrhythmias, conduction defects, number of shocks given or other pharmacological measures done. Incidence of arrest after myocardial infarction was 26.6% varying from 32.5% after anterior wall M.I. to 16% after inferior wall M.I. Attempts of resuscitation were successful in 39.1% of cases with best results in subendocardial and inferior wall infarctions than in anterior wall and multiple infarctions. It is concluded that the duration of arrest had very good correllation with the outcome of resuscitation, i.e. the shorter the duration, the better prognosis (P <0.001). The prognosis was better in patients who developed ventricular fibrillation than in those who developed asystole, while the outcome was nil in cases who developed electromechanical dissociation. When immediate defibrillation was successfully carried out the results were more favorable. The prognosis was better in cases which developed arrest earlier after infarction.

Original Title	**Cardiac arrhythmias in patients with mitral valve prolapse**
Author	Muftah, Hasan A. et al.
Author affiliation	Assiut Univ. (Egypt). Fac. of Med.
Source & Date	Assiut Medical Journal. v14 n2 p241-244, Apr 1990
Abstract	20 patients with mitral valve prolapse were studied by 24 hours ambulatory (Holter) monitoring to detect arrhythmia and conduction abnormalities. Sixteen patients (80%) were found to have different form of arrhythmias, 10 of them complained of palpitation. Premature ventricular beats were found in 12 patients (60%) and premature atrial beats in 7 patients (35%). Combination of both types of premature beats was found in 5 patients. Three patients (15%) had functional premature beats. Sinus arrhythmia was found in 15 patients, three patients (15%) had functional premature beats. Sinus arrhythmia was found in 5 patients (25%), sinus tachycardia and sinus bradycardia each were found in 2 patients (10%). One patient had a wandering pacemaker and another had intermittent right and left bundle branch block.

Original Title | **Cardiac dysrhythmias in normal subjects versus coronary patients Analysis of 172 ambulatory ECG recordings**

Author | Abu Hashem, A., Hassenien M.T. , Frere A.H. , Ayad S.M., Abu-Elenine M.W., El-Awadi M.I., Shalaby A.R. Shahwan M.L.

Author affiliation | Cardiology Department, Faculty of Medicine, Zagazig University

Source & Date | The New Egyptian Journal of Medicine. v2 n3 p833-844, Oct 1988

Abstract | The results of 24 - hours Holter monitoring of apparently normal subjects were compared with those of coronary patients. A total of 172 Holters for 93 healthy persons ranged in age from 15-70 years-group 1-80 with palpitation-subgroup IA and 13 with semisyncope-subgroup IB, and 79 coronary patients ranged in age from 28-78 years-group II - 39 with stable angina-subgroup IIa, 28 with recent myocardial infarction 5-20 days duration-subgroup IIB and 12 with old myocardial infraction 3 months to 2 years duration-subgroup IIC, were analyzed for heart rate change and incidence of differet dysrhthmi as . Total heart beats/24 hours, mean, minimum and maximum Hr/min.,were higher for group II compared to gp.I. Females showed higher HR parameters compared to males in both groups. A proportionate decrease of HR parameters with age was demonstrated in gb. I. Circadian variation of HR follow the same pattern in gp.I. and subgp. IIA, whereas subgp. IIB and IIC disclosed a diffierent trend.

Original Title	**Conduction defects, echocardiographic evaluation of left ventricular function and cardiac autonomic neuropathy in diabetes mellitus**
Author	Abdel-Kader, Samir S. Ahmed, Yusreya A. Tawfik, Nabbaweya M. et al.
Author affiliation	Assiut Univ. (Egypt). Fac. of Med.
Source & Date	Assiut Medical Journal. v13 nl p241-253, Jan 1989
Abstract	Claims are being raised that diabetic cardiomyopathy constitutes a separate pathophysiologic entity. Two hundred and five diabetic patients free of symptoms of cardiovascular disease with a mean age of 47 years and 210 age and sex matched healthy controls were studied. First degree heart block, right bundle branch block and prolonged Q-T interval were found in 8.3%, 6.3% and 66.3% of diabetics compared to 0.0%, 2.9% and 8.6% of controls, respectively. Echocardiographic abnormalities were in the form of: global hypokinasia in 42.9%, increased EPSS in 29%, diminished E.F slope in 35.5%, thickened interventricular septum in 32.3% paradoxical septal movement in 3.2%, diabetics. These echocardiographic abnormalities may reflect systolic and diastolic affection of LV functions, most probably due to decreased contractility and increased stiffness of the myocardium in diabetic patients. Patients with left ventricular dysfunction showed abnormal resting heart rate with deep rhythmic breathing in 62%, Valsalva ratio lower than 1.1 in 60% and postural hypotension in 48% versus 21%, 28%, 26% and 15% respectively in those with normal left vent'ricular functions. These data suggest that cardiomyopathy involving cardiac performance is related to the presince of autonomic dysfunction

Original Title	**and without inj ection of lidocaine**
Author	Abdel-Sattar, Hanem
Source & Date	The New Egyptian Journal of Medicine . v8 n2 p350-354, Feb 1993
Abstract	The hemodynamic responses to endotracheal extubation and efficacy of I.V. lidocaine pretreatment were studied after intra-ocular surgery. Twenty patients were divided into two equal groups: group 1 patients who had placebo, group 2 patients who received lidocaine 1. 5 mg . kg-1 before tracheal extubation. Hemodynamic data, electrocardiographic tracings were obtained at the end of surgery during suctioning and 1, 3, 5 min . af ter tracheal extubation . Group 1 patients displayed significant increases in HR, SAP, DAP, MAP and RPP during suctioning and within 1, 3, 5 min. after tracheal extubation. Two patients showed evidence of myocardial ischemia on ECG after extubation which was self limited and of short duration. Ventricular extrasystoles were observed during extubation in 1 patient. In lidocaine treated patients (group 2) the increases in HR, SAP, DAP, MAP and RPP were completely attenuated during suctioning and within 1 min. of extubation. No patient in this group revealed evidence of myocardial ischemia or cardiac dysrhythmias. The results show the beneficial effects of I.V. lidocaine in preventing coughing, laryngospasm and increases in arterial blood pressure, heart rate during and af ter extubation.

Original Title	**Effect of monochromatic light on the frequency the isolated pacemaker tissue of the frog Rana ridibunda**
Author	Abou-El-Ela, Kawthar
Source & Date	The New Egyptian Journal of Medicine. v6 n2 p350-353, Feb 1992
Abstract	The effect of monochromatic light of different wavelengths (450, 500, 550, 600, 650 and 700 nm) on the frequency and electrogram of the isolated pacemaker tissue of the frog's heart, was studied. It was found that exposure of pacemaker tissue for 15 min to monochromatic light of different wavelengths caused highly significant increase in the rhythm of pacemaker tissue. This increase was inversely proportional to the wavelength of the incident monochromatic light. However , the increase of pacemaker rhythm was comparable for both sexes and was independent of sex. After switching off the monochromator, the frequency of pacemaker tissue returned to its preexposure value. The present study suggests that the monochromatic light may increase the kinetic energy of ions resulting in the acceleration of the self excitation process of pacemaker tissue observed in this work.

Original Title	**Effect of disopyramide on epinephrine-induced arrhythmia under halothane anaesthesia in dogs**
Author	Fahmy, Nadia A. M. El-Debba, Mohamed. Moursy, Mahmoud G. et al.
Author affifiation	Alex. Univ. (Egypt). Fac. of Med.
Source & Date	Bulletin Alexandria Faculty of Medicine. v25 n3 p863-870.
Abstract	This study was carried out on twenty mongrel dogs anaesthetized by halothane, (1-1.5% in 02 4L/min), to find the role of disopyramide on the epinephrine induced arrhythmias on these dogs. They were divided into two equal groups, a therapeutic group (10 dogs) ; they received disopyramide (2-3 mg/kg) to treat the developed dysrrhythmias induced by epinephrine (130 mu g /min) and a prophylactic group (10 dogs); they received disopyramide (2.9 mg/kg) in advance to against the development of epinephrine (130 mu g / min) induced dysrrhythmias. The therapeutic administration of disopyramide succeeded to decrease significantly the epinephrine induced tachycardia (P less than) and to revert the developed dysrrhythmias (ventricular premature beats) with cure rate 90%, the 10% failure being a case of ventricular fibrillation. The prophylactic administration of disopyramide maintained the rhythm sinus in presence of epinephrine challenge with a prophylactic success of 10% but it did not guard against the increase in heart rate induced by epinephrine (P less than 0.001). It was recommended from the present study to use disopyramide in the anaesthetic field whenever there is a risk of dysrhythmia develops due to epinephrine-halothane interaction

Original Title | **Effect of magnetic field on the frequency of isolated pacemaker cell contractions of frog heart**

Author | Abou-El-Ela, Kawthar S.

Source & Date | The New Egyptian Journal of Medicine. v 5 n 11 suppl p90-95, Nov 1991

Abstract | The effect of magnetic field of different strengths (500, 1000, 1500, 2000, 2500, and 3000 Oersted) on the frequency of isolated pacemaker cell contractions of frog heart, was studied. It was found that exposure of pacemaker cells for 3 minutes to magnetic fields of the different strengths failed to change the frequency of pacemaker cell contractions. On the other hand, when the isolated pacemaker cells were exposed for 60 minutes to magnetic fields of the same strengths, a highly significant decrease in the rhythm of pacemaker cells was observed. This decrease was proportional to the field intensity. However, arrhythmia was frequently observed when the pacemaker cells were exposed to extremely high magnetic field (above 2000 Oersted). After switching off the magnetic field, the frequency of pacemaker cell contractions did not return to its pre-exposure value. The present study suggests that prolonged exposure to high magnetic field leads to disturbances in heart rate.

Original Title | **Efficacy of amiodarone in suppressing ventricular dysrhythmia during exercise testing in recent myocardial infarction**

Author | Hamed, Ramzi. et al.

Source & Date | The New Egyptian Journal of Medicine. v2 n3 p811-816, Oct1988

Abstract | 15 patients with acute myocardial infarction (MI) and ventricular dysrhythmia (group 2) responded to parenteral followed by oral amiodarone. 15 patients with acute MI and ventricular dysrhythmia responded to conventional anti-dysrhythmic drugs (group 1). Submaximal treadmill exercise testing was performed one month following the MI in both groups. Comparison showed significant results in group 1 and 2 as regards : Exercise tolerance 4.8 min., chronotropic reserve 40 bts.Vs 60 bts., resting heart rate 90 b/min. Vs 72 b/min., S-T segment changes 46.7% respectively. Amiodarone prevented exercise-induced ventricular dysrhythmia in 93.3% of patients with recent MI showing its potent anti-dysrhythmic and antianginal effect which may play an important role in this group of patients who are at maximum risk of arrhythmogenic death in the period thereafter.

Original Title	**Evaluation of coronary care unit of Zagazig University Hospital: 4 years experiences**
Author	Abdella, Abou-Hashem. Hasanayn, Mesbah. Ayad, Sulayman. et al.
Source & Date	The New Egyptian Journal of Medicine. v3 nl plO3-112, 1989
Abstract	This retrospective work aims to assess and evaluate the coronary care Unit-CCU-of Zagazig University Hospital, through study of 335 cases admitted over 4 years. Acute myocardial infarction AMI- was the commonest cause of admission, 57%-191-cases. Other admissions include: heart failure-12.5% (rheumatic-18 cases, dilated cardiomyopathy-12 cases, ischemic failure-ll cases, and corpulmonale-l case), cardiac dysrhythmias-10.4% (AF-15 cases, paroxy. SVT-13 cases PVC5-4 cases and AV block-3 cases), unstable angina (AP)-9%, hypertensive emergencies 63% (left vent.failure-10 cases, encekphalopathy cases and aortic dissection-5 cases), pulmonary embolism-2.9%, deep venous thrombosis-1.6% and aortic dissection (due to Marfan Syndrome) 0.3%.

Original Title	**Evaluation of long term use of amiodarone in low dose**
Author	Abdel-Halim, M. Saeid. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	The Medical Journal of Cairo University. v61 n3 suppl pl43-151, Sep 1993
Abstract	Thirty two patients with ventricular or supraventricular arrhythmias were treated with amiodarone in low dose (1000 mg/week) for more than 6 months. Amiodarone serum level as well as the level of its metabolite desethylamiodarone was determined biweekly using an HPLC method. Serum levels attained were around the lower end of the therapeutic range. Significant variation in serum level was observed within the same patient over time scale. The low dose used did not produce major side effects but was highly effective in controlling the arrhythmia. The effect on ECG intervals was studied during the steady state period of the drug. The PR interval was prolonged without leading to heart block. The QT interval showed an increase of a mean value of 16% +8.4%. Significant correlation was found between prolongation in ECG intervals and the drug serum level. This correlation was more significant with the metabolite, desethylamiodarone than with the parent compound amiodarone. Arrhythmia whether supraventricular or ventricular was controlled in all patients (100%). It is concluded that low dose amiodarone is highly effective in controlling supraventricular and ventricular arrhythmias with no major side effects.

Original Title	**Follow up of implanted pacemakers generator versus lead malfunction**
Author	Radhwan, Wahid. Mukhtar, Sherif. El-Saeid, Galal
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	The Medical Journal of Cairo University. v59 n2 pl27-137, 1991
Abstract	The incidence of PM problems whether due to generator or lead malfunctions varied widely and was related to the generator and electrode characteristics, underlying cardiovascular disorder and the experience of the implanting physician. The time factor had also an important role, in so far as lead problems tend to occur during the early post-implantation period and battery depletion shows itself later on. In the group included in our study, pacemaker problems due to lead defects were 3-4 times more frequent than those due to generator depletion. Twelve pacemaker problems were encountered in 22 patients and were divided into three generator problems in six patients, four lead problems in seven patients. Two patients suffered pacemaker side effects and the remaining two had pseudomalfunctions. Generator problems included power source depletion. Oversensing, and altered programmabilty. Lead problems encountered were lead malposition, wire break, insulation defect, and set screw unfitness. While problems related to the myocardium included exit block and undersensing of small ORS complexes. Correction of PM problems could be conducted in the majority of cases either through reprogramming of programmable PM, or reexposure in cases of generator problems or lead malposition. The above mentioned study illustrates a number of other important facts: the relatively lower rate of permanent PM implantation in comparison other centers, and the usefulness of non~ invasive methods of follow-up in the majority of cases. Although follow-up is much easier and correction of malfunction is more attainable through the use of programmable PMS, it is felt that WI PMS could still satisfy the needs both patients and physicians in our society.

Original Title	**Hypopotassemic syndrome in acute myocardial infarction and its relation to conduction defects**
Author	Abdu, M. A. et al.
Author affiliation	The Egyptian Society of Cardiology, Cairo (Egypt)
Source & Date	The Egyptian Heart Journal. v29 p115-123, Oct 1988
Abstract	50 patients with acute myocardial infarction were studied for serum potassium level on admission to hospital in relation to conduction defects and bradyarrhythmias. 17 patients showed conduction defects and bradyarrhythmia. They were 16 males and 1 female age average (59.75 ±8.20). Of the 50 patients only 17 patients developed different types of conduction defects and bradyarrhythmias constituting 34% of all patients studied while 9 patients continued their normal sinus rhythm forming 18%. Potassium level in the group of patients showing conduction defects and bradyarrhythmia ranged between 2.7 - 5 mEq/L average (3.87 ± 0.51 mEq/L). In the group with sinus rhythm (9 patients) serum potassium level ranged between 3.6 - 4.9 mEq/L with an average of 4.02 ± 0.37 mEq/L. The incidence of various types of conduction defects and bradyarrhythmia was studied in relation to initial serum potassium level after acute myocardial infarction. This study showed a tendency to hypokalemia with increasing age and that a reasonable relation had been found between serum potassium level and the site of acute myocardial infarction.

Original Title | **Study of arrhythmia in some Egyptian children using different noninvasive techniques**

Author | Aumran, Salwa. Ashour, Zaynab

Source & Date | The New Egyptian Journal of Medicine. v6 n4 p972-977, Apr 1992

Abstract | This study was conducted on 10 patients who presented with different types of arrhythmias detected on routine 12 lead ECG and long strip lead 2. Their ages ranged from 8 days to 12 years. They were 6 females and 4 males. All of them had been subjected to good history taking and full clinical examination, standard 12 lead ECG with long strip lead 2, echocardiography and holter monitoring. It was found that 80% of the cases had acute onset of symptoms, Dysponea and syncope were the presenting symptoms in 30% and 20% respectively, while 10% (one case) was symptomless. There was -ve family history in all the cases, -ve consanguinity in 70% and normal perinatal history in 60%. Clinical examination revealed tachycardia in 40% and bradycardia in 20% normal blood pressure in all the cases, cardiomegaly in 30% and congective heart failure in 20%. Echo showed normal heart anatomy and dimensions in 60% cardiomyopathy in 2 cases, one case with Fallot's tetralogy and RV enlargement in 4 cases ECG showed that 3 cases had S.V.T., 2 had premature ventricular contractions, 1 with sick sinus syndrome, 1 with ventricular tachydysrhytmia, 1 with 3rd degree heart block, 1 with wolf-Parkinson with syndrome and one with dropped beat. Holter 24 hours monitoring revealed the same findings as long strip ECG except for the case with dropped beat, that proved to have no abnormalities.

Original Title | **Study of serum magnesium level in patients with ventricular dysrythmia after AMI**

Author | Awadh, Aumar. Kamal, Mussttafa. Sabri, Eihab

Source & Date | The New Egyptian Journal of Medicine. v3 n5 p 1581-1584, Nov 1989

Abstract | 40 patients were divided into two groups each of which consisted of 20 patients. Patients of the first group suffered from acute M.I. (myocardial infraction) without ventricular dysrhythmia during the observation period. The second group consisted of 20 patients who had acute M.I. complicated by different types of ventricular dysrhythmias. Both groups were subjected to thorough clinical examination with evaluation of the serum cardiac enzymes, blood urea, serum creatinine, serum Potassim and serum magnesium. A resting E.C.G. was done to every patient and showed changes of acute M.I. The serum Mg was estimated by the atomic absorption spectrophotometry method. The serum mg level in the group of patients with acute M.I. and ventricular dysrhythmia (the second group) was less than that of the first group but the difference was insignificant. There was no correlation between the level of serum Mg and the type of ventricular dysrhythmia, i.e. bigeminy, trigeminy or ventricular tachycardia. This study showed that although the serum Mg level in patients who developed ventricular dysrhythmia during course of AMI was normal, the prevalence of that dysrhythmias was more in those patients (25% versus 5%) who had low normal serum Mg levels. It was previously mentioned that the intracellular Mg level is a more specific parameter than the serum Mg level to determine depletion of Mg from the body.

Original Title | **Surgical evidence for the mechanism of spontaneous closure of VSD, and its implications on management of closing defects**

Author | Abdel-Raouf, Muhammad. Selim, Zainab Salah

Source & Date | The New Egyptian Journal of Medicine. v9 n5 p1592-1600, Nov. 1993

Abstract | This study had been conducted on 140 patients of ventricular septal defect. They were divided into two groups. Group I, 25 patients with surgical evidence of partial spontaneous closure of VSD. Group II, 115 patients without attempts of spontaneous closure of the defect. The clinical symptoms and signs of cardiomegally, lung congestion and pulmonary hypertension were more apparent in group II. Radiologic electrocardiographic and echocardiographic evidences of large VSD, left to right shunt, ventricular enlargement and pulmonary hypertension were also more evident in group II. The best technique for surgical closure of such closing defect was found to be patch closure by either the remaining defect in tricuspid tissue or the original VSD after incising the septal leaflet of tricuspid valve, with continuous sutures in the fibrous tissue formed around the defect. This method is devoid of conduction defect or residual shunt.

Original Title The heart in psoriasis ECG changes and liptid profile

Author Selim, Nadya M. Fahmi, Ahlam A. Hasan, Husni A.

Source & Date The New Egyptian Journal of Medicine. v2 n2 p 553-559, Sep 1988

Abstract For 140 patients with extensive psoriasis (91 males and 49 females) with a mean age of (40.6 years) and 30 comparable controls a standard ECG tracing was analyzed. The patients showed insignificantly higher incidence of conduction defects ; insignificantly higher incidence of unexplainable sinus tachy and bradycardia and significantly higher incidence of ST-T wave changes. For a subgroup of 28 selected psoriatic male patients ranging in age between 25-45 years (mean of 42, 6) and 15 comparable controls, serum lipid-lipid fractions and exercise stress test were done. Patients showed significantly lower levels of high density lipoprotein cholesterol (HLDC) fraction and insignificantly higher levels of serum triglycerides. Four patients (14.3%) showed a positive stress test. It is concluded that the myocardium as well as the conducting system of the heart are involved in psoriasis. Whether this is a primary damage or secondary to microangiopathy or other mechanisms needs to be probed. Hyperlipidemia with its possible cardiovascular complications is a risk factor in young psoriatic patients oxygen & halothane using semi-closed system. No dangerous dysrhythmia was observed wen adequate ventilation was assured, deep halothane anaesthesia was elven, the infiltration was delayed until 10 minutes after tracheal intubation & the rate of injection was adjusted at 10 ml. in 10 minutes period.

Original Title | **Study of atrioventricular and intraventricular conduction defects in acute myocardial infarction incidence and prognosis**

Author | Ayoub, Amal. et al.

Source & Date | The Egyptian Heart Journal. v34 p23-31, Jun 1990

Abstract

The incidence of intraventricular and atrioventricular conduction defects was 26% in 50 consecutive cases of acute myocardial infarction (AMI) observed in coronary care unit. The most common conduction defect was left anterior hemiblock (LAH) 10%. The next common were left bundle branch block (LBBB) 4%, right bundle branch block (RBBB) 4%, and RBBB associated with LAH. Unclassified BBB was present in 2%. Mortality rate during the first 6-weeks was 38.5% in patients complicated by conduction defect while in those without this defect it was 4%. Causes of death were pump failure, ventricular fibrillation and death occurred suddenly in some patients.

Original Title | **WI versus VDD pacing ; Cardiopulmonary exercise test comparison**

Author | Sousou, A. I. et al.

Source & Date | The Egyptian Heart Journal. v38 pl03-118, Oct 1991

Abstract

In order to evaluate the usefulness of the physiological VDD pacing in comparison with the W I one, 7 patients (mean age 55,6 years ; 3 males and 4 females), with normal LV systolic function as determined by echo-Doppler, with implanted dual chamber pacemakers for complete heart block and normal SA nodal function, were studied. The patients were exercised by treadmill using the Bruce protocol in a symptomslimited method. VC02 and other cardio-pulmonary parameters were measured on l-minute interval (using Vista apparatus, model 17520). Each patient was tested in WI (70 bpm fixed rate) and VDD modes (upper rate 150 bmp, AVD 120 msec) in a randomized way. Results: during the stress test evaluation, 2 patients had a spontaneous 1:1 AV conduction and were so excluded from the study. In comparison to WI mode, in the VDD mode the anaerobic threshold (AT) increased from 0.9 ±0.1 to 1.1± 0.1 l/min (12.91±3.1 to 15.20±3.3 ml/kg, 18.4%); time of AT from 5.0 ±2.9 to 6.2±2.7 minute s/24.0%); V02 max from 1.4± 0.1 to 1.5± 0.1 l/min (18.7± 3.9 to 20.5 ±4 ml/kg 10%) ; VE from 55.7± 5.3 to 62.5 ±7.5 l/min (12.3%); exercise time from 11±2.9 to 12.4±2.7 minutes (10.9%). It was concluded that the physical capability was improved by VDD pacing in comparison to WI one.

Original Title	**Association Between Ventricular Ectopic Activity and Myocardial Ischemia in Patients with Chronic Stable Angina.**
Author	Al-Shair M H, Al Awady M, Ghoniem, S.M., El Gawady, M.M.
Author affiliation	Cardiology Department, Zagazig Faculty of Medicine.
Source & Date	The New Egyptian Journal of Medicine. ; Vol: 11, No:2 (1.8.1994) ; p723
Abstract	The high prevalence of ventricular arrhythmias in patients with acute transmural ischemia or infarction has been the subject of several investigation. The association between transient myocardial ischemic episodes and ventricular arrhythmias during daily activities was investigated in ambulatory patients with stable angina. Fourty five patients with proven coronary artery disease, ischemic episodes on Holter monitoring and positive treadmill test for ischemia, but without ventricular arrhythmias, were studied. A total of 226 ischemic episodes were recorded during 1080 hours of 24-hour Holter monitoring. Eleven patients had no evidence of ventricular arrhythmias and 34 patients had ventricular arrhythmias during the recording. These include ventricular premature contractions (VPCs) (168 ±137/24 hours), 56 couplets, 7 bigeminy or trigeminy and one patient had one attack of.non-sustained ventricular tachycardia. Of these 34 patients with ventricular arrhythmias, 11 had VPCs < 24/24 hours and 23 patients had VPCs > 24/24 hours. There was no association between ischemic ST depression and the frequency of ventricular arrhythmias during ambulatory Holter monitoring. Even patients with frequent (> 3 episodes)and deep (> 1.5 mm) or prolonged (> 20 minutes) ST depression had no increased ventricular arrhythmias. Conclusion : Transient myocardial ischemia in patients with stable chronic angina are not associated with ventricular arrhythmias during daily activities.

Original Title	**TWELVE YEARS EXPERIENCE OF PERMANENT PACEMAKER SIDE EFFECTS AT CAIRO UNIV.**
Author	Osama Tayeh , Hassan M. Khaled Nagi , Samir Abdalla ,Soliman Ghareb & Sherif Mokhtar
Author affiliation	Department of Critical Care Medicine,Cardiology and Cardio Thoracic Surgery , Cairo University
Source & Date	The New Egyptian Journal of Medicine. ; Vol: 11, No:3 (1.9.1994) ; p1263
Abstract	Starting from 1982 up to the end of 1993, 648 permanent pacemakers (PMs) were implanted in 578 patients at Critical Care Center of Cario University. Out of 578 patients who had permanent PMs, 486 (84.1%) were available for follow up for a mean period of 53±10. 3 months (Range from 2 to 130 months). The entire period of follow up was divided intofirst 6 years (82-87) and second 6 years (88-93). Pacemaker side effects were encountered in 88 pts (18.1%) in our series. These included hematoma (7.2%), erosion (5.2%), pocket infection (2.5%), pneumothorax (2.2%), extracardiac muscle stimulation (1.6%), lead perforation (0.9%), pacemaker syndrome (0.9%), cerebrovascular accident (0.5%), misconnection (0.4%), deep venous thrombosis (0. 4%), pericardial effusion (0. 2 %), endocarditis (0.2 %), hemopneumothorax (0. 2 %), and pacing of left ventricle (0. 2 %). PM side effects in the second 6 years far exceeded those in the first 6 years (26.1% vs 13. 3 %, P= 0. 003). Conclusion: With increasing rate of implantation, pacemaker side effects were relatively high and were significantly affected by operator skills & experience. The higher incidence of pacemaker side effects in the second 6 years reflect the learning curve of the new generation of operators.

Original Title	TWELVE YEARS EXPERIENCE OF PERMANENT PACEMAKER MALFUNCTIONS AT CAIRO UNIV.
Author	Sherif Mokhtar , Osama Tayeh , Hassan M. Khaled Nagi , Waheed Radwan & Soliman Ghareeb
Author affiliation	Department of Critical Care , Faculty of Medicine, Cairo University
Source & Date	The New Egyptian Journal of Medicine. ; Vol: 11 , No: 5 (1.11.1994) ; p1609
Abstract	Starting from 1982 up to the end of 1993, 648 permanent pacemakers (PMs) were implanted in 578 patients in the Critical Care Center of Cairo University. The biennial implantation rate increased from 21 PMs in 1982-1983 to 194 PMs in the last two years (92-93). Non programmable (VVI0) pacemakers implanted have declined from 21 PMs (100%) in 82-83 to 42 PMs (21.6%) in 92-93 with a shift to multiprogrammable PMs (52.6%) and more sophisticated physiologic pacemakers (22.7%) including VVIR (13.4%), DDD (6.2%), VDD (3.1%), and antitachycardiacPMs (3.1%). Evaluation of types of pacemaker malfunctions.Out of 578 patients who had permanent PMs, 486 (84.1%) were available for follow up for a mean period of 53±10.3 months (Range from 2 to 130 months).Pacemaker complications were classified into those due to generator malfunctions and those due to lead problems. The entire period of follow up was divided into first 6 years (82-87) and second 6 years (88-93). Methods of diagnosis included history, resting 12 lead ECG, magnet test, electronic testing, telemetry, plain X-ray chest, abmulatory ECG, chest wall stimulation, provocative maneuver and lastly invasive testing. Generator malfunctions included normal end of life (3.6%), sensing malfunctions (2.9%) and premature end of life (1.1%). Lead problems included lead displacement (10.8%), insulation failure (1.3%), exit block (1.1%), lead fracture (0.9%), lead under sensing (0.9%), and twiddler 's syndrome (0.4%). Lead problems in the second 6 years far exceeded those in the first 6 years (17.3% vs 10.1%) while the incidence of the generator malfunctions was higher in the first 6 years compared to those in the second 6years (14.6% vs 4.8%). Increasing rate of implantation with progressive shift from non programmable to more sophisticated physiologic pacemakers imposed an additional task on implanting physician namely diagnosis and mangement of pacemaker malfunctions. Lead problems in the second period of follow up were almost thrice the generator malfunctions reflecting the learning curve of the new generation of operators. However, the increasing incidence of generator malfunctions is related to the longer follow up and better longevity of patients.

Bibliography of
Egyptian Medical Research on Cardiac arrhythmias

Part II:
Thesis presented to medical schools

Original Title	**Effect of some non steroidal anti-inflammatory drugs and thromboxane synthetase inhibitor (Imidazole) on arrhythmias induced in rats**
Author	Yaaqoub, Mari El-Qummus Buttrus
Author affiliation	Zagazig Univ. Banha Branch (Egypt). Fac. of Med.
Source	Thesis; M.D.; Pharmacology
Date of publication	1993
Abstract	This work aimed to evaluate the effect of some non-steroidal antiinflammatory drugs on adrenaline and ouabain-induced arrhythmias in anesthetized rats. It was noticed that aspirin and indomethacin had a protective effect in case of adrenaline and ouabain arrhythmias and reduce the level of prostaglandin in heart tissue including thromboxane A2. Imidazole protected the myocarduim against ouabain and adrenaline arrhythmias. This indicates that thromboxane A2 has an important role in the genesis of ventricular ectopic activity and ventricular fibrillation because TxA2 has two effects on the coronary microcirculation, namely it could cause local coronary vasoconstriction and there could be mechanical obstruction in small blood vessels as a result of TxA2-induced platelet aggregations. The result could be a further reduction in blood flow to an already compromised myocarduim. This might trigger ventricular ectopic activity.

Original Title	**Correlation between incidence of arrhythmias and left ventricular systolic and diastolic functions in idiopathic dilated cardiomyopathy**
Author	Yousuf, Muhammad Amin
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; Cardiology
Date of publication	1993
Abstract	The aim of this study is to detect the occurrence of atrial and ventricular arrhythmias in patients with idiopathic dilated cardiomyopathy (I.D.C.) and to correlate ventricular arrhythmic events with the degree of impairment in systolic and diastolic functions of the heart. 30 patients with I.D.C. were studied. A positive correlation between left atrial dimension and number of A.P.Bs/24 hours was found. Also there was a negative correlation between V.T. episodes/24 hours, vent pairs/24 hours and impaired overall systolic performance. It was concluded that there is no correlation between total number of V.P.Bs/24 hours and the degree of L.V. systolic function impairment in cases of I.D.C. Also, the occurrence of V.T. episodes is higher in patients with low serum levels of potassium and magneslum

Original Title	**Correlation between incidence of arrhythmias and left ventricular systolic and diastolic functions in idiopathic dilated cardiomyopathy**
Author	Yousuf, Muhammad Amin
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; Cardiology
Date of publication	1993
Abstract	The aim of this study is to detect the occurrence of atrial and ventricular arrhythmias in patients with I.D.C. using Holter monitoring and to correlate ventricular arrhythmic events with the degree of impairment in systolic and diastolic functions of the heart evaluated by echocardiography. It was concluded that there is a high incidence of ventricular and arrhythmias in patients with I.D.C. In cases of I.D.C. there is a positive correlation between left atrial dimension and number of A.P.B's/24 hours, and a negative correlation between V.T. episodes/24 hours, vent pairs/24 hours and impaired overall systolic performance. There is no correlation between ventricular arrhythmic events and E.S.V., E.S.W.S./E.S.V. There is no correlation between total number of V.P.B's/24 hours and the degree of L.V. systolic function impairment in cases of I.D.C. Except for the negative correlation detected between E velocity and total number of V.P.B's/24 hours and vent pairs/24 hours, there is no correlation between ventricular arrhythmic and the degree of diastolic impairment of cardiac function assessed by the following parameters (E velocity, A velocity, E/A ratio, E integral, A integral, A/E integral, and total velocity integral). The occurrence of V.T. episodes in cases of I.D.C. is higher in patients with low serum levels of potassium and magnesium.

Original Title	**Role of surgery in management of cardiac arrhythmias**
Author	El-Emam, Mahmoud Sabri Mahmoud
Author affiliation	Zagazig Univ. Banha Branch (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; General Surgery
Date of publication	1992
Abstract	Several mechanisms are responsible for cardiac arrhythmia, but reentry is the most common cause. Routine cardiac investigations are of limited value in detection of the precise sight of origin and underlying mechanism for tachyarrhythmias. Invasive investigations are helpful for such diagnosis. Proper selection and meticulous intraoperative mapping, are of prime importance for success of cardiac arrhythmia surgery. Many options including cryoablation or combined sinoatrial node, atrioventricular node insulation are used to treat patients with atrial flutter fibrillation. Ventricular subendocardial resection and/or cryoablation permit intraoperative assessment of adequacy of these procedures. Cardiac transplantation is the last resort for patients with refractory, life threatening arrhythmia.

Original Title	**Formulation of certain anti-arrhythmic drugs in transdermal therapeutic system**
Author	El-Shabouri, Khaled Fatthi
Author affiliation	Cairo Univ. (Egypt). Fac. of Pharm.
Source	M.Sc.; Pharmaceutics
Date of publication	1992
Abstract	The aim of this work is to formulate propranolol HCL in TDDS. The results reveal that the films obtained from the different Eudragit polymers were glassy and transparent except those obtained from NE3OD which was opaque. Only PSPM, RLPM and NE30D films could absorb moisture within the first 14 days. Addition of plasticizers to the copolymer increased the moisture absorption capacities. The higher the value of Young's modulus, the stiffer is the film. Eudragit RLPM, PSPM and NE30D are considered standards with the experimental conditions of this study. The release of propranolol indicated that the increase of plasticizers is accompanied by proportional increase in Pr. HCl from different studied films. Polyethylene glycol 400 was more effective than propylene-glycol. The permeability coefficient of C.A.N. membrane was more than that of P.V.F. membrane. The latter could be used for determining the parameters of permeability of Pr. HCl from different bases. The pharmakokinetics of Pr. HCl after oral dose or I.V. bolus dose to rabbits and after transdermal administration of hydrogel patch were reported. Neither Pr. HCl nor hydrogel patch caused any skin irritation.

Original Title	**Recent advances in recognition and management of cardiac arrhythmias in children**
Author	Ghuzzi, Gamal Muhammad
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; Pediatrics
Date of publication	1992
Abstract	This thesis discusses the recent advances recognition and management of arrhythmias in children. These include non-invasive methods as ambulatory (Holter) and transtelephonic ECGs, as well as invasive techniques as electrophysiologic testing. Regarding the management recent advances include electrophysiologic study, Pacemaker therapy with new types for infants and the use of verapamil and amiodarone in children. Also surgical and catheter treatment of these dysrhythmias in children have recently improved.

Original Title	**Clinical and experimental studies of esmolol hydrochloride (brevibloc) as an anti-arrhythmic agent during anesthesia**
Author	Kamel, Adel Kamal
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Thesis; M.D.; Anesthesia
Date of publication	1992
Abstract	This work aimed to study some of the pharmacological profile of esmolol and its use in anesthetic practice. Studies on isolated perfused rabbit heart revealed a dose related negative inotropic effect starting at 20 mug/ml. Esmolol is short lived compared with propranolol. On isolated rat and rabbit atrial preparations, esmolol could antagonize the stimulatory effect of isoprenaline on the rate and amplitude of contraction starting at 2.5 mug/ml. From 2.5 to 3 on the tracheal strips contracted by histamine. In cats, anesthetized by chloralose, esmolol antagonized the isoprenaline-induced increase in the heart rate, in a dose related manner (100-400 mug/kg/min). Propranolol blocked the tachycardiac and hyposensitive effects of isoprenaline in anesthetized cats when injected at 50 mug/kg. In human beings, before induction of anesthesia with thiopentone and succinyl choline, esmolol decreased HR, SBP, DBP, MAP and RPP. After intubation esmolol compared with placebo, significantly attenuated the increased heart rate, blood pressure and rate pressure product. Esmolol and propranolol had a comparable effect on the values of the perioperative management parameters for thyroidectomy.

Original Title	**Arrhythmias during anesthesia**
Author	Hathout, Azza Mussttafa
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Thesis; M.Sc.;
Date of publication	1992
Abstract	This essay attempts to organize and present in a concise form an approach to arrhythmia, diagnosis and treatment, especially during anesthesia. It includes short brief on the anatomy of the conducting systems electrophysiology (normal and abnormal), etiology of arrhythmia with emphasis on intraoperative variety and the pharmacology of antiarrhythmic drugs.

Original Title	**Experimental and clinical evaluation of aprindine in the management of perioperative cardiac arrhythmias**
Author	El- Arnaoutti, Hassan Abdel-Muneim
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; Anesthesiology
Date of publication	1992
Abstract	The aim of this work was to evaluate the effect of aprindine in cases of perioperative cardiac arrhythmias during surgical procedures. The drug was also tested experimentally to evaluate its antiarrhythmic activity on arrhythmias induced by adrenaline in cats with halothane, arrhythmias induced by ouabain in cats with chloralose and on experimentally induced atrial fibrillation in cats with chloralose. The effect of aprindine on the blood pressure and ECG in cats with chloralose was also investigated. In addition the effect of the drug on isolated rabbit's aortic strip and rabbit's heart was tested. The study was carried on 120 patients submitted to ENT, ophthalmic and orthopedic operations. Aprindine is a wide spectrum antiarrhythmic drug highly effective against ventricular arrhythmias. It can also be used in supraventricular arrhythmias. Doses of 1.5- 3.0 mg/kg can suppress and treat arrhythmias induced by laryngoscopy and endotracheal intubation without significant effect on the contractility of the heart or BP. Experimentally the drug was effective against both adrenaline and ouabain arrhythmias. It also has a dose dependent hypotensive and negative inotropic effects.

Original Title	**Ventricular arrhythmias in patients with hypertensive left ventricular hypertrophy**
Author	Muhammad, Fatthi Farag
Author affiliation	Al-Azhar Univ., Cairo (Egypt). Fac. of Med.
Source	Thesis; M.Sc.; Cardiovascular Disease
Date of publication	1991
Abstract	This study aimed to define the prevalence of ventricular arrhythmias among hypertensive patients and to correlate the incidence of ventricular arrhythmia with the extent of left ventricular mass. The inter-ventricular septal thickness in diastole, left ventricular posterior wall thickness and left ventricular mass index were significantly greater than in the controls. Similarly, the frequency of total PVCs and R on T PVCs were higher in all hypertensive groups, more prominently among patients with LVH. The increase in the incidence of IVR, Bi or trigeminy was significant only in patients with LVH and with ST-T wave changes in their ECG whereas the incidence of couplet PVCs was significantly high in all groups. There was a positive correlation between left ventricle mass index and ventricular arrhythmias among the studied groups.

Original Title	**Prevalence of arrhythmia in patients with liver cirrhosis by 24 hours ambulatory ECG recording**
Author	Ahmed, Muhssen El-Sayed
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Internal Medicine, 1990
Abstract	The prevalence and types of arrhythmia in cirrhotic patients was studied in this work. 30 subjects were included in the study, they were divided into 2 groups according to presence or absence of features of liver cell failure. Conclusion revealed that the incidence of arrhythmia in the form of arterial premature contractions and premature ventricular contractions is increased in cirrhotic patients.

Original Title	**Effect of changes in the serum levels of potassium and magnesium, in the genesis of arrhythmias in the hypertensive patients**
Author	El-Arousi, Wafaa Anwar
Author affiliation	Organization(s) Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.D.; Cardiology ,1990
Abstract	The role of diutretic-induced hypokalemia and hypomagnesemia in the genesis of arrhythmia in sixty-four patients with essential hypertension was studied. In conclusion, it is believed that although diuretic induced cardiac arrhythmia have a relatively low incidence, and are not serious grade ventricular arrhythmia, yet routine estimation of electrolytes (potassium and magnesium) and replacement therapy for their deficits may be warranted only in hypertensive old patients, with possible coronary heart disease and/or left ventricular hypertrophy or dilatation.

Original Title	**Arrhythmias in idiopathic dilated cardiomyopathy in relation to the left ventricular systolic and diastolic function**
Author	El-Hindi, Abdu Abdel-Hamid
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology , 1990
Abstract	This work aimed to assess the incidence and severity of arrhythmias in patients with idiopathic dilated cardiomyopathy. The results indicate that arrhythmias are common in patients with idiopathic dilated cardiomyopathy and patients with ischemic cardiomyopathy. The incidence and severity of ventricular dysrhythmia is related to the extent of left ventricular systolic dysfunction. There is no apparent relationship between the incidence of complex ventricular arrhythmia and indices of diastolic function of the left ventricle except in patients with idiopathic dilated cardiomyopathy and ventricular tachycardia who had higher values of acceleration slope of the early diastblic inflow velocity.

Original Title	**Comparative study on the anti-arrhythmic anti-ischemic activities of exogenous prostaglandins El and calcium channel blocker (Verapamil)**
Author	Awadh, Hesham Atteya
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; Ph.D.; Pharmacology , 1990
Abstract	In this work, a comparative study on rats was held between prostaglandin El and verapamil HCl on myocardial ischemia as determined by percentage infarct area and electrocardiographic changes. The effect of the same drugs was studied on adrenaline induced arrhythmia in anesthetized cats. Other experimental studies were carried out on nictatating membrane and blood pressure with electrocardiographic recording of anesthetized cats. It was found that, prostaglandin El caused reduction of infarct area after ligation of the left coronary artery in rats, most probable due to decreased blood pressure as well as due to inhibition of cardiac response to endogenously released catecholamine. Furthermore, prostaglandin El produced cardiac arrhthmyia. It seems that prostaglandin El is a useful tool in management of cardiovascular crises.

Original Title	**Arrhythmogenic potential of oral long acting xanthine preparation in chronic obstructive airway disease**
Author	Azmi, Husayn Muhammad
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology , 1990
Abstract	The effect of oral long-acting theophylline on cardiac arrhythmias was studied in 10 patient (mean age 62 years) with stable chronic obstructive airway disease by continuous 24-hour ambulatory ECG monitoring. Although all patients received the same oral dose of oral in the hepatic drug metabolism as well as the erratic absorption of long-acting theophylline preparations. The mean grade of ventricular arrythmia changed during theophylline therapy, but this change did not correlate with the serum drug levels, arterial oxygen tension (PAo2) pH, serum potassium levels, age or sex of the patients, nor all to these factors combined (P> 0.05). It is concluded that oral longacting theophylline, as a single therapeutic agent maintained at therapeutic serum levels, seems unlikely to provoke sigificant ventricular ectopy or supraventricular arrhythmias in stable COPD patients who do not have a previous heart disease, or an underlying cardiac arrhythmia. However, in COPD patients suffering from a cardiac disease or a cardiac arrhythmia, the effect of the drug is unpredictabe.

Original Title	**Magnesium deficiency and ventricular arrhythmias in digitalised patients**
Author	El-Maghrabi, Maged Muhammad
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.D.; Cardiology , 1990
Abstract	This study did not reveal any case with true hypomagnesemia. There was a statistically significant difference between both groups regarding serum magnesium level and the case group being on the lower normal level. Also, there was a statistically significant difference as regards mean serum magnesium in patients with ventricular bigeminy and patients suffering from ventricular tachycardia, compared to mean serum magnesium in the control group. A statistically significant correlation was established between the mean serum digoxin in patients suffering from ventricular bigeminy and ventricular tachycardia compared to the mean serum digoxin level of the control group. Meanwhile, serum potassium level showed no statistical significant difference between both groups. There was a significant statistical difference as regards the mean serum magnesium level correlated to the duration of diuretic therapy in both cases (9 months) and control (6 months) groups.

Original Title	**Effect of different concentrations of halothane on the arrhythmogenic dose of epinephrine versus lidocaine-epinephrine**
Author	Saleh, Galal Abou-El-Seaoud
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.D.; Anesthesia , 1989
Abstract	The effect of different concentrations of halothane on the arrhythmogenic dose of epinephrine versus lidocaine-epinephrine was evaluated in this work. Experimental studies were performed on 25 dogs & human studies were conducted on 50 patients without any concomitant disease. It was concluded that halothane in light concentrations may potentiate the arrhythmogenic effect of epinephrine injection. Other results were discussed.

Original Title	**The value of electrocardiography in intraoperative diagnosis and treatment of arrhythmias and ischemia**
Author	Darwish, Hesham Muhammad
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Anesthesia , 1989
Abstract	The aim of this thesis was to review the current understanding of electrophysiological mechanisms involved in the evaluation of ST segment deviation and ischemia induced ventricular arrhythmias so as to provide the clinical cardiac anesthesiologist with further insight into mechanisms generating the observed electrophysiologic abnormalities.

Original Title	**Role of isometric versus dynamic exercise in precipitating arrhythmias in mitral valve prolapse syndrome**
Author	Emari, Adel Ibrahim
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology, 1988
Abstract	This study aimed at comparing the arrhythmogenic effect of isometric exercise & of dynamic exercise in patients with mitral leaflet prolapse syndrome MLPS. 2 groups were studied, 3 with MLPS & 15 controls. Isometric exercise precipitated no arrhythmias, while treadmill exercise precipitated various types of arrhythmias in 36% of patients & 2 of the controls. The main result of the study showed that isometric exercise is not arrhythmogenic in MLP, or at least safer than dynamic exercise for these patients.

Original Title	**Value of prolonged QTc interval at onset of acute myocardial infarction in predicting early phase ventricular arrhythmias**
Author	Fathi, Ahmed Mohamed
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology , 1988
Abstract	This work study prospectively assessed the time-course alterations of the QTc interval during the early stage of acute myocardial infarction to determine if repolarization abnormalities occuring in the early stage of acute MI predict related ventricular arrhythmias. It was concluded that prolongation of QTc interval is a common feature during acute myocardial infarction, maximal on the second day & return to normal values by the fourth to fifth day. Also, there is no significant difference between the degree of QTc interval prolongation with anterior & inferior infarction during the early stage

Original Title	**Arrhythmias in patients with G.O.A.D. as detected by 48 hours Holter Monitoring**
Author	Yehia, Abdel-Rahman
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology ,1987
Abstract	In this work, Holter monitoring & resting E.C.G. of 20 patients with G.O.A.D. were studied. Clinical diagnosis was supported by x-ray chest, blood gases & respiratory function tests. Ventricular premature beats & sinus tachycardia were the most common types of arrhythmias observed in this study. It is advisable to have Holter monitor recording for every patient with G.O.A.D. as a part of his clinical evaluation.

Original Title	**Incidence of cardiac arrhythmias in patients with acute myocardial infarction after discharge from coronary care unit**
Author	Sadek, Sameh Emil
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology,1987
Abstract	Thirty patients with acute myocardial infarction after their discharge from the care unit were examined. Their detailed Holter monitoring showed the prevalence of cardiac arrhythmias in these patients. From the results of this study it is advisable not to discharge patients with acute myocardial infarction from the coronary care unit before the fifth day from the acute event as this period usually covers the peak of arrhythmias in most cases. It was concluded that the use of continuous electrocardiographic recordings or Holter monitor has revealed many electrocardiographic abnormalities occuring with great frequency in patients with acute myocardial infarction after the coronary care unit.

Original Title	**Recognition of cardiac arrhythmias in patients with various types of cardiomyopathy**
Author	Saad-El-Din, Medhat Mohammed
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology ,1986
Abstract	It was found that various types of cardiomyopathies are common to have high grade of arrhythmias. These arrhythmias have a high risk of sudden death. Mortality & morbidity rate is high enough to warrant antiarrhythmic therapy. Ideally, therapeutic efficiency should be confirmed by subsequent holter recordings.

Original Title	**Respiratory sinus arrhythmia in normal children and in children with rheumatic heart disease**
Author	Aboullo, Serag-El-Din Kamal
Author affiliation	Alex. Univ. (Egypt). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Paediatrics, 1985
Abstract	The present work aims to study the prevalence of the respiratory sinus arrhythmia in normal children of different ages and the prevalence of respiratory sinus arrhythmia in children with rheumatic fever and children with chronic rheumatic heart disease. The study is conducted on 100 normal children aged 5-13 years classified into four groups. 25 children with active rheumatic heart disease and 25 children with chronic rheumatic valvular lesions are also included. ECG is recorded for all cases and the presence of RSA is diagnosed when the difference between the shortest and longest cardiac cycle reaches at least 0, 12 sec. The results obtained prove that rheumatic activity abolishes RSA to a great extent, this may be due to the damage of the sinus node by the rheumatic process which may heal and so RSA appears again in chronic cases.

Original Title	**Disopyramide (Rythmodan) in arrhythmias**
Author	Qasem, Aly Muhammad Ahmed
Author affiliation	Assiut Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; General Medicine, 1983
Abstract	The aim of this work iS to evaluate the effectiveness of a new antiarrhythmic drug (disopyramide) in the suppression of arrhythmias in (65) patients. The drug is compared with the drug of classical choice (digoxin in supraventricular and lignocaine in venticular arrhythmias). Complications of disopyramide and its effect on the blood pressure and on the E.C.O. is also studied. Finally, complications of digoxin and lignocaime is considered. The patients with cardiac arrhythmias who are admitted in the period of study to thorough clinical examination to include candidates for the drug trail and to exclude the unsuitable patients. The results showed, that the clinical effectiveness is considered when there is arrhythmia control with absence of drug complications.

Original Title	**Modern trends in cardiac arrhythmias and their treatment**
Author	Mohamed, Ihab Ahmed
Author affiliation	Cairo Univ. (Egypt). Faculty of Medicine
Source & Date	Thesis; M.Sc.; Medicine ,1982
Abstract	

Original Title	**Value of 24 hours continuous ambulatory monitoring in detecting arrhythmias in patients with ischemic heart disease**
Author	Mandour, Muhammad Muhammad Abdel-Rahman
Author affiliation	Al-Azhar Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis: M.Sc.; Cardiology ,1987

Original Title	**Present status in diagnosis and therapy of peri-operative cardia arrhythmias**
Author	El-Sadek, Wafaa Mohamed
Author affiliation	Cairo Univ. (Egypt). Faculty of Medicine
Source & Date	Thesis; M.Sc.; Medicine, 1982

Original Title	**Arrhythmias in acute myocardial infarction incidence and prognostic Implicaion**
Author	Salama, Abdel-Monem Fetouh
Author affiliation	Cairo Univ. (Egypt). Faculty of Medicine
Source & Date	Thesis; M.Sc.; Medicine ,1981

Original Title	**A microprocessor based improved ambulatory cardiac arrhythmia monitoring system**
Author	El-Sherif, Mohamed Abdel-Fattah Saad
Author affiliation	Cairo Univ. (Egypt). Faculty of Engineering
Source & Date	Thesis; Ph.D.; Biomedical Engineering, 1981

Original Title	**Anaesthesia and intra operative caidiac arrhythmias**
Author	Bakheet, Janett Gadalla
Author affiliation	Cairo Univ. (Egypt). Faculty of Medicine
Source & Date	Thesis; M.Sc.; Medicine ,1980

Original Title	**Arrhythmias in dilated cardiomyopathy in relation to the left ventricular systolic and diastolic functions**
Author	Abdel-El-Hadi, Ebrahim Bedair
Author affiliation	Ain-Shams Univ., Cairo (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology ,1995
Abstract	This study aimed to assess the incidence and serverity of arrhythmias in patients with dilated cardiomyopathy whether idiopathic or ischemic and the relation between these arrhythmias and systolic and diastolic function of the left ventricle assessed by echocardiography and Doppler study. The results show that complex ventricular arrhythmias are common in patients with idiopathic dilated cardiomyopathy and patients with ischemic dilated cardiomyopathy. The incidence and severity of ventricular arrhythmias is related to the extent of left ventricular systolic dysfunction. There was no detectable relation between the incidence of the complex ventricular arrhythmias and diastolic function parameters of the left ventricle but only the presence of significantly higher values of acceleration slope of early diastolic inflow velocity in patients with ventricular tachycardia in idiopathic dilated cardiomyopathic patients

Original Title	**Efficacy of intravenous magnesium in acute myocardial infarction in reducing arrhythmias and mortality**
Author	Sami, Wagdi Amin
Author affiliation	Ain-Shams Univ., Cairo (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology , 1995
Abstract	This work aimed to evaluate the role of Mg therapy in AMI. Heart failure, hypotension, heart block, electrolyte disturbance, insulin dependent diabetes mellitus, renal impairment and previous use of anti-arrhythmic drugs were the exclusion criteria. The incidence of arrhythmias through the first week was less in the Mg-treated group (20%) than the placebo group. There was no adverse effects for the Mg therapy. Regression of elevated ST segment was observed in 2 patients in the Mg-treated group and coronary spasm was suggested to be a contributing factor in the attack with good response to Mg therapy.

Original Title	**Effect of some pharmacological interventions on reperfusion induced arrhythmias in the rat heart**
Author	Mursi, Muhammad Aly Muhammad
Author affiliation	Zagazig Univ. Fac. of Pharm.
Source & Date	Thesis ; M.Sc. ; Pharmacology, 1994
Abstract	This study aimed to investigate the pharmacological interventions of glibenclamide, enalapril and acetaminophen on reperfusion-induced arrhythmias. It is evident that glibenclamide is effective in protecting the heart against reperfusion-inducted ventricular fibrillation partly by attenuating the wash out of potassium and enhancing the membrane integrity upon reperfusion. Enalapril reduced the duration of reperfusion-induced ventricular fibrillation though it produced insignificant effect on perfusate norepinephrine and total protein concentrations which might play an important role in such type of arrhythmia. Acute administration of acetaminophen increased the duration of reperfusion-induced ventricular fibrillation with no observable effect on its incidence.

Original Title	**Pharmacological studies on the effect of some drugs on cardiac arrhythmias**
Author	El-Gharbawi, Atef Saad Abdel-Rahim
Author affiliation	Zagazig Univ. (EGY). Fac. of Pharm.
Source & Date	Thesis : Ph.D. ; Pharmacology,1993
Abstract	In the present study the effect of monensin on tension of isolated guinea pig aorta was studied to clarify the mechanism of action of monensin. Monensin enhanced the arrhythmogenic action of digoxin. It induced shortening of the action potential duration of guinea pig papillary musclesin as well as a hyperpolarization of guinea pig atrial and ventricular muscle preparations. Due to the transient positive inotropic effect and shortening of action potential duration under the effect of monensin in guinea pig and human ventricular muscle preparations, the use of nonensin clinically in cardiac disease states requiring inotropic support, coronary vasodilation or increase of cardiac output appears unlikely. Furthermore, monensin (10 mumol/L), in presence of prazosin (1 mumol/L), induced a transient increase in muscle tension of isolated guinea pig aorta. In the presence of ouabain (10 mumol/L), monensin induced sustained increase in tension of guinea pig aorta. Monensin induced relaxation of guinea pig aorta precontracted by norepinephrine. The relaxant effect was partially reversed by glibenclamide

Original Title	**Cardiac disturbances due to toxicity with certain drugs**
Author	Zakareya, Mahmoud Sami
Author affiliation	Menia Univ. (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Forensic Medicine & Toxicology
Abstract	This work was carried out for the study of acute cardiovascular toxic actions the calcium chanpel blocker (verapamil) and the individual drug of both groups in a toxic dose induces sinus bradycardia, prolongation of both P.R. and Q.T. intervals, bundle branch block, complete heart block and ventricular asystole on the surface electrocardiogram and pathologically the lung, liver and kidney showed manifestations of heart failure while there was no pathological changes in the heart. The two groups of the drugs produced insignificant changes in the electrolytes levels in serum and cardiac tissue except for calcium ions level in the cardiac tissue which was greatly and significantly reduced. K+ and Na+ ions have a minor and insignificant role in the effects of both groups of the drugs on the cardiovascular system. The cardiovascular toxicity of both drugs are mainly due to acute congestive heart failure and cardiogenic shock.

Original Title	**Assessment of sinus node and atrioventricular nodal function in patients with sinoatrial disease**
Author	Kholeif, Hatem
Author affiliation	Al-Azhar Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.D.; Cardiology
Abstract	The purpose of this work was to assess sinus node (SN) and the atrioventricular (AV) conduction in patients with sinoatrial disease in patients without ECG or Holter pacing modality for these patients. Assessment of SN and AV conduction by electrophysiological study (EPS) in 21 patients revealed abnormal CSNRT or secondary pause in 81% and a borderline abnormal AV condition in 19%. This indicates that patients with SN disease in absence of AV conduction abnormalities on ECG or during Holter recordings are unlikely to have a significant underlying abnormality at the time of pacemaker implantation and should therefore be considered for atrial (AAI) pacing. The use of adenosine to identify patients with SN disease was evaluated in 20 patients with SN disease. A longer sinus cycle length (SCL) following adenosine administration was observed in these patients compared to 10 control patients ($P<0.05$) and the maximum effect of adenosine on SCL/SCL-of 5 beats prior to adenosine administration of more than 2.12 was found to have a sensitivity of 45% and a specificity of 90%. Adenosine therefore, can be used as a diagnostic test in patients with SN disease. The incidence and clinical impact of the development of AV conduction abnormalities was assessed in 100 patients who had pacemaker implantation for sinoatrial disease.

Original Title	**Arrhythmias in idiopathic dilated cardiomyopathy in relation to the left ventricular systolic and diastolic function**
Author	El-Hindi, Abdu Abdel-Hamid
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology
Abstract	This work aimed to assess the incidence and severity of arrhythmias in patients with idiopathic dilated cardiomyopathy. The results indicate that arrhythmias are common in patients with idiopathic dilated cardiomyopathy and patients with ischemic cardiomyopathy. The incidence and severity of ventricular dysrhythmia is related to the extent of left ventricular systolic dysfunction. There is no apparent relationship between the incidence of complex ventricular arrhythmia and indices of diastolic function of the left ventricle except in patients with idiopathic dilated cardiomyopathy and ventricular tachycardia who had higher values of acceleration slope of the early diastolic inflow velocity.

Original Title	**Anesthesia for pacemaker insertion**
Author	Abdel-Lattif, Suhad Mutawalli
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Anesthesia
Abstract	Electronic cardiac pacemakers are devices that electrically stimulate the heart. The most commonly implanted pacemaker is the demand ventricular type. All current pacemakers are multi programmable. Any indication for permanent pacing is always an indication for temporary pacing in the perioperative period provided, the patient does not already have a pacemaker. Pacemaker electrodes may be inserted epicardially or endocardially. Complications of pacemakers include hemorrhage, cardiac arrhythmia, cardiac perforation and pneumothorax. Postoperative complications include pacemaker malfunction such as failure to pace or sense, pacing at an altered rate and undesirable patient pacemaker interactions and electromagnetic interference e.g. electrocautery.

Original Title	**Cardiac pacing in 1986**
Author	Amin Mohamed Muhyi-El-Din
Author affiliation	Ain-Shams Univ., Cairo (Egypt) . Fac . of Med.
Source & Date	Thesis; M.Sc.; Cardiology
Abstract	This study deals with the new effective technique of cardiac pacing. Pacemaker codes, different modes of cardiac pacing as well as the pacemaker system are discussed. Among the most common pacing indications are acquired AVB with or without ML, Bi- & trifascicular blocks, SSS, HCSS & tachycardia prevention . The implantation of pacemaker is done transvenously replacing the surgical epimyocardial technique except in those with venous system or tricuspid valve anomalies or in underweight infants with small hearts. Follow-up is important for early detection & prompt management of the possible pacemaker complications.

Original Title	**Cardiac problems in the newborn**
Author	Teaama, Manal Helmi Muharad
Author affiliation	Cairo Univ . (Egypt) . Fac. of Med .
Source & Date	Thesis; M.Sc .; Pediatics
Abstract	This thesis studis congenial cardiovascular diseases in neonates which occur in 7 out of 10 births and represent 10% of all congenital malformations. The most common type is ventricular septal objects and thej least common in this period is the Ebstein' s anomaly of the tricuspid valve (1 in 80, 000) life births about 0. 5% of congenital heart diseases in this period. Cardiac problems in the neonatal period are revealed by either cyanosis or heart failure or cardiac dysrhythmias, Cyanosis is a/symptom of transpositions of the great arteries, tetrology of Fanot, pulmonary atresia, pulmonary stenosis and several other congenital cardiovascular problems.

Original Title	**Clinical and pharmacological studies of tocainide hydrochlorid (tonocard)**
Author	Fouad, Maneh Fouad Saleh
Author affiliation	Al-Azhar Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.D. ; Anaesthesia
Abstract	In the present work, tocainide was evaluated both experimentally and clinically. The results were reviewed and was concluded that tocainide is an effective anti-dysrhythmic drug capable of suppression of ventricular dysrhythmias independent of its nature. It has the advantage that it can be applied both orally and parenterally with a long duration of action, a wide safety margin and haemodynamic stability.

Original Title	**Diagnosis and management of intraoperative dysrhythmias occurring during non-cardiac surgery**
Author	Kamali, Ayman M. Mukhtar
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Anesthesiology & Intensive Care
Abstract	Dysrhythmias occur due to abnormalities of cellular electrophysiology that affect automatic activation or impulse conduction. Clinical causes of dysrhythmias include benign causes, cardiac dysfunction, metabolic disorders, autonomic imbalance and many drugs including anesthetics. The ECG remains the prime monitor for the detection of intra-operative dysrhythmias. Also electrical methods can be used in the management of dysrhythmia. These include pacemakers, cardioversion and automatic implantable cardioverter defibrillator (AICD). Before proceeding with specific therapy, four questions should be answered. First, is this dysrhythmia detrimental ; second, is the rhythm an "escape rhythm and bradycardia" ; third, is the rhythm a tachycardia or likely to contribute to myocardial ischemia ; lastly, is this rhythm likely to degenerate into dangerous dysrhthmias.

Original Title	**Disorders of cardiac conduction in the perioperative period**
Author	Abdel-Aziz, Rehab Muhammad Sami
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Anesthesiology
Abstract	Management of anesthesia in patients with pre-excitation syndromes is based upon avoidance of sympathetic stimulation and establishment of an adequate depth of anesthesia before attempting endotracheal intubation. Prolonged QT interval syndromes are rare inherited abnormalities with important implications in the management of anesthesia. Delayed repolarization of the ventricles, as reflected by prolonged QT intervals, increases susceptibility of the heart to dysrhythmias. Management of anesthesia in these patients is based on the prior production of beta-adrenergic blockade or performance of prophylactic left stellate ganglion block. Thus, pre-operative medication to reduce anxiety is essential. Used volatile anesthetics must suppress sympathetic nervous system responses to painful stimulation and avoid sensitization of the heart to arrhythmogenic effect of catecholamines. An electrical defibrillator must be available since ventricular fibrillation is quite probable. Careful monitoring of patients with cardiac conduction disorders throughout the perioperative period is essential in order to detect any dysrhythmia and to deal with it immediately.

Original Title Dysrhythmia during endotracheal intubation and bronchoscopy Prophylaxis and management

Author Muhammad, Seham Husayn

Author affiliation Ain-Shams Univ., Cairo (Egypt). Fac. of Med.

Source & Date Thesis; M.D.; Anesthesia

Abstract This study is designed to compare the effects of different premedicant and antidysrhythmic drugs on cardiovascular changes following interbation and bronchoscopy to attenuate and manage any possible dysrhythmias. It was conducted on 320 patients without any concomitant disease. It was found that unpremedicated and premedicated patients with atropine are the most vulnerable groups to cardiac dysrhythmias after endotracheal intubation. Hyoscine is a preferable premedicant drug whenever antisialogogue is indicated. Transquilzers are also effective in protecting the heart against the arrhythmogenic effect of intubation. Lidocaine and tocainide are effective in suppressing cardiac dysrhythmias. Propranolol and verapanil should be used very cautiously due to their negative dormotropic effect. It was concluded that hypoxemia as well as laryngospasm should be avoided during bronchoscopy by adequate level of anesthesia

Original Title	**Dysrhythmias and conduction disturbances in congenial heart disease**
Author	Sharabi, Muhammad Farid Abdel-Maqssoud
Author affiliation	Al-Azhar Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc; Cardiology
Abstract	In the present work, 66 patients were studied in an attempt to assess the nature and incidence of dysrhythmia and conduction defects in patients undergoing surgery. The material included 34 males and 32 females whose ages ranged from 3 to 45 years (mean 14.2 years ± 8.2 years). All had congenital heart diseases based on clinical and angiographic criteria. Fallot tetralogy (F4) : 24 cases, Ventricular septal defect (VSD) : 12 cases, Atrial Septal defect (ASD) : 17 cases, Pulmonary stenosis (P.S) : 7 cases, Subaortic membrane (S.Ao.M) : 5 cases and Transposition of great arteries (TGA): one case. All the patients were symptomatic except 3 patients. Thus 66 patients were studied preoperatively and 59 patients postoperatively. All the studied patients were subjected to 12-lead ECG with special emphasis on: P wave contour, P-R interval, and QRS complex (duration, axis, conduction defects and thythm disturbance). 24, 48 hours ambulatory electrocardiographic monitoring were conducted using Oxford Medilog Cassette analyzer system (Medilog MP-14) for analysis of modified VI and V6 leads. Bradyarrhythmias had higher incidence in the early postoperative time while tachyarrhythmias in the late postoperative time. The incidence of ventricular arrhythmias increased in older patients at time of surgery ($P > 0.105$ in patients up to 8 years old, $P<0.05$ in patients 8:16 years old and $P < 0.01$ in patients >16 years old). 7 patients (10.8%) died after total correction. One patient (1.5%) died after closure of ASD primum and another one after excision of the subaortic membrane plus aortic valve replacement.

Original Title	**Dysrhythmias and conduction defects in fallot's tetralogy**
Author	Awwad, Aumar. Shahin, Sameh. Abdel-Dayem, M. K. et al.
Source & Date	The New Egyptian Journal of Medicine. v2 n2 p479-483, Sep 1988
Abstract	The nature and prevalence of conduction defects and dysrhythmias both before and after surgical correction of tetrology of Fallot (TOF) were studied in 35 patients using resting 12-Lead ECG and ambulatory 24hour monitoring. Twenty patients (aged 3 months to 32 years) had not yet undergone repair (Group I) and 15 (aged 5.5 to 16 years) were studied 6 months to 32 years after surgical repair (Group II). None of the parhythmias in 33.3% of the patients. Significant ve ,-tricular dysrhythmias were related to older age at operation and also at this study. Thus, patients with TOF should be operated upon within the first few years of life and ambulatroy 24-hour ECG monitoring should be included in their postoperative assessment.

Original Title	**Early diagnosis of impending pacemaker malfunction in a pacemaker clinic & its correlation to cardiac parameters; Pre & post implant**
Author	Mazen, Adel Ahmed ORG Ain-Shams Univ., Cairo (Egypt).
Author affiliation	Thesis; M.D.; Cardiology 1992.
Abstract	In this work 180 patients were under follow up within a period of 54 months. The pacemaker system was studied in details. The lead electrical measurements were dealt with as well. Indications of permanent with special reference to normal WI E.C.G. were studied Modes of cardiac pacing as well as pacing malfunctions were discussed in details. Pacemaker follow up clinic & reprogramming were reviewed. Side effects of pacing & results were discussed .

Original Title	**Efficacy of intravenous magnesium in acute myocardial infarction in reducing arrhythmias and mortality**
Author	Sami, Wagdi Amin
Author affiliation	Ain-Shams Univ., Cairo (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology
Abstract	This work aimed to evaluate the role of Mg therapy in AMI , Heart failure, hypotension, heart block, electrolyte disturbance, insulin dependent diabetes mellitus, renal impairment and previous use of anti-arrhythmic drugs were the exclusion criteria. The incidence of arrhythmias through the first week was less in the Mg-treated group (20%) than the placebo group. There was no adverse effects for the Mg therapy. Regression of elevated ST segment was observed in 2 patients in the Mg-treated group and coronary spasm was suggested to be a contributing factor in the attack with good response to Mg therapy.

Original Title	**Extent and severity of coronary artery disease in patients with conduction abnormalities**
Author	Shenouda, Wahed Luttfi
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology
Abstract	This work studies extent and severity of coronary artery disease in patients with conduction defects. It was conducted on 40 selected patients who were proved by coronary angiogram to have coronary artery disease. It was found that many patients with conduction defects had no myocardial infarction, had single vessel disease of mild or moderate lesion with normal left ventricular function. It was concluded that intraventricular conduction defects are a common complication in patients with coronary artery disease and acute myocardial infarction. There is no direct relation between the extent and severity of coronary artery disease and presence or absence of a conduction defect. It is probably the development of collateral circulation at the upper part of the septum which governs the relation between vascular and conduction tissue lesions. The left ventricular function is dependent on the extent of the associated transmural myocardial infarction and not on the conduction defect present.

Original Title	**Fixed rate versus rate-responsive ventricular pacing : Exercise performance and hemodynamic assessment using echocardiography**
Author	Muhammad, Khaled Husain
Author affiliation	Cairo Univ. (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology
Abstract	To assess the effects of physiologic rate variation ,during cardiac pacing on exercise performance and hemodynamics, 24 patients (9 males and 14 females) in whom permanent pacemakers had to be implanted for complete heart block (21 pts), sinus mode disease (1 pt) and binodal disease (2 pts), were studied. Following implantation, CO was measured at various heart rates. Echo-Doppler was carried out to measure SV, CO in both fixed rate and in rate-responsive mode before and immediately after treadmill exercise testing. The results reveal a very significant increase in CO in rate-responsive mode compared to fixed rate mode at OHR. Whereas the time spent on treadmill increased by 15% in rate-responsive mode compared with fixed rate mode at OHR.

Original Title	**Long term follow up of implanted cardia pacemakers**
Author	Radwan, Wahid Ahmed
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology
Abstract	This study dealing with a detailed report of permanent pacing in 120 patients carried out in Cairo Univ. hospitals through the experience of the critical car center over the past 5 years. Out of 120 patients subjected to pacemaker implantation, 92 were followed up in the pacemaker clinic at an average period of 26 months (range of 2 to 54 months) non invasive/methods of assessment included resting & dynamic/ECG, magnet testing, electronic testing, chest wall stimulation, fluoroscopy besides careful through clinical examination. 12 pacemaker problems were encountered in 22 patients & were divided into 3 generator problems in 6 patients, 4 lead problems in 7 patients, & 2 problems at the level of lead myocardium interface in 5 patients. This study illustrates a number of important facts/such as the relatively lower rate or permanent pacemaker implantation in comparison to other centers, & the usefulness of non invasive methods of follow up in the majority of cases. Although follow up is much easier & correction of malfunction is more attainable through the use of programmable pacemakers. The Wi pacemakers could still satisfy the needs of both patients & physicians.

Original Title	**Perioperative dysrhythmias**
Author	Aumar, Safaa Mussttafa
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Anesthesia
Abstract	Cardiac dysrhythmias are one of the most frequent abnormalities occurring to the heart during the perioperative period. Understanding the basic physiology, etiology, types and treatment of perioperative dysrhythmias are essential to the safe use of anesthesia. Dysrhythmias may be due to abnormal automaticity, parasystole or reentry mechanism. They are classified according to their types into tachy-, brady-dysrhythmias and pre-excitation syndrome. They develop from a great variety of causes which may be related to medical, anesthetic or surgical causes. The anti-dysrhythmic drugs are classified into 5 classes. Class I inhibits rapid sodium in flux during phase O of action potential. Class II drugs block the B receptors on the heart. They have anti-anginal and anti-hypertensive effects. Class III drugs are anti-fibrillatory. Class IV drugs are calcium channel blockers. Class V is digitalis. There are general considerations during management before giving these drugs. Any respiratory inadequacy should be corrected. Drugs, sensitizing the myocardium should be given with caution during anesthesia. If these lines fail, pace-makers should be established according to the need of the patient.

Original Title	**Prevalence of dysrhythmias detected by 24-hour continuous electrocardiogram in the late hospital phase of acute myocardial infarction**
Author	Abel-Hamid, Muhammad Walid Farouq
Author affiliation	Ain-Shams Univ., Cairo (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology
Abstract	This study included 25 patients. The results revealed a significant increase of premature ventricular beats with age and CPK level in the blood. Serum potassium was an inverse predictor for the premature ventricular ectopics and complex ventricular beats. The present study reported the relative importance of depressed left ventricular function as an underlying cause of increased premature ventricular activity. There was a significant correlation between patients with anterior infarction and their high serum CPK level, in comparison with those with inferior infarction. A significantly high serum CPK level was also recorded among the subgroup of patients with a left ventricular ejection fraction less than 40%.

Original Title	**Recent advances in recognition and management of cardiac arrhythmias in children**
Author	Ghuzzi, Gamal Muhammad
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Pediatrics
Abstract	This thesis discusses the recent advances recognition and management of arrhythmias in children. These include non-invasive methods as ambulatory (Holter) and transtelephonic ECGs, as well as invasive techniques as electrophysiologic testing. Regarding the management recent advances include electrophysiologic study, Pacemaker therapy with new types for infants and the use of verapamil and amiodarone in children. Also surgical and catheter treatment of these dysrhythymias in children have recently improved

Original Title	**Short versus long term follow up of permanent pacemakers : Ten years experience at Cairo University**
Author	Tayeh, Usama Muhammad
Author affiliation	Cairo Univ. (EGY). Fac. of Med.
Source & Date	Thesis ; M.Sc. ; Cardiology
Abstract	Starting from 1982 up to the end of 1993, 648 permanent pacemakers (PMs) were implanted in 578 patients, with the biannual implantation rate increasing from 21 PMs in 1982-1983 to 194 PMs in the last two years (1992-1993). Out of 578 patients who had permanent PMs, 486 were available for follow up for 2 to 130 months. The results revealed that increasing rate of implantation with progressive shift from non programmable to more sophisticated physiologic pacemakers is an expression of the increasing referral and proper decision. Lead problems in the second period of follow up were almost thrice the generator malfunctions. The higher incidence of lead problems and pacemaker side effects reflect the learning curve of the new generation of operators. The increasing incidence of generator malfunctions is related to the longer follow up and better longevity of patients.

Original Title	**Study of atrioventricular & intraventricular conduction defects in acute myocardial infarction; Incidence, prognosis & therapy**
Author	Helal, Ashraf Munir
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source & Date	Thesis; M.Sc.; Cardiology
Abstract	The incidence of intraventricular & atrioventricular conduction defects was 26% in 50 consecutive cases of acute myocardial infarction observed in coronary care unit. The most common isolated defect was left anterior hemiblock LAH, next common conduction defects were left bundle branch block, right bundle branch block & RBBB associated with LAH. Data from retrospective studies showed that temporary or permanent pacing may be beneficial to some subgroups of conduction defects complicating AMI.

Original Title	**Value of ambulatory electrocardiographic monitoring in assessment of early post myocardial infarction phase**
Author	Selim, Mahmoud Luttfi Mahmoud
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Thesis; M.D.; Cardiovascular Medicine
Abstract	This work was performed on 35 patients with acute myocardial infarction. The results reveal that ambulatory ECG (Holter) monitoring is a useful non-invasive method to predict the severity of CAD and the extent of LV dysfunction. Ischaemic changes and dysrhythmia detection should be considered in interpretations of Holter recording. Holter monitoring is applied to patients unable to exercise when the stress test proved negative. The Holter monitoring and exercise test are complementary and not essentially identical. Most infarction AP may be specific for post infarction residual ischaemia but not sensitive enough.

Original Title	**Weaning after open cardiac Surgery**
Author	Ahmad, Nesrin Muhammad
Author affiliation	Cairo Univ. (Egypt). Fac/ of Med.
Source & Date	M.Sc.; Anesthesiology
Abstract	The most common routine for establishing extracorporeal circulation for cardiac operations is to drain venous blood from the venae cava and to pump arteriazed blood into the ascending aorta. Myocardial preservation includes cooling by hypothermic CPB, epicardial surface cooling by ice and irrigation of the pericardium with iced fluid and intracoronary inclusion of cold cardioplegia solution or continuous direct hypotheic coronary perfusion by the CPB pump, myocardial arrest by hykerkalemic cardioplegic solution and prevention of ventricular distension and edema by venting the left venricle and inclusion of/ mannitol in the cardioplegic solution. Hemodynamic weaning invo~ves decreasing the rate of vasoactive drug infusion while maintaining normal filling pressures, cardiac output and blood.

Bibliography of
Egyptian Medical Research on Cardiac arrhythmias

Part III:
Papers presented to conferences

Original Title	**Postoperative arrhythmias after trans-septal approach for mitral valve replacement**
Author	Muhsen, Usama M. Abdel-Ghani, Abdel-Ghani M.
Author affiliation	National Heart Inst.
Source	Annual Conference of the Egyptian Society of Cardio-Thoracic Surgery. 1st. Cairo (Egypt). Feb 3-4, 1994
Date of publication	3/2/94
Abstract	Trans-septal approach for MVR had been performed for 106 patients between Jan., 1991 to Dec., 1992 in NHI. This approach was done in cases with severe pericardial adhesions. In this study, 25 patients who had pre-operative sinus rhythm were followed up, in the immediate and late post-operative period to detect atrial arrhythmias by : 1-Continuous monitoring of ECG in the immediate 48 hrs. post-operative. 2- Holter monitor immediately before discharge. 3- Holter monitor after 6 months. In the immediate post-op. time, 9 patients (36%) developed different atrial arrhythmias as sinus tachycardia in 8% atrial flutter in 12%, AF in 16%, nodal rhythm in 4%, first degree HB in 8%, 2nd degree HB in 8%, and complete HB in 4% . Six patients with these arrhythmias were reversed to sinus rhythm with medications within 3 to 48 hrs. At time of discharge, 3 patients still had atrial arrhythmias as first degree HB in one and AF in two and they requir continuous medications. After 6 months, one patient still had persistent AF. Trans-septal approach is successfully used for MVR partiularly for cases with severe pericardial adhesions as in reoperation. After arrhythmias that developed following trans-septal approach were transient in immediate post-op. period and statistically insignificant in late postoperative

Original Title	**Mechanisms of ventricular arrhythmia in essential hypertension**
Author	El-Attroush, H. H. Surour, K. Mukhtar, M. Sherif. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Annual Meeting of the Egyptian Society of Cardiology. 19th. Cairo (Egypt). Feb 23-28, 1992 p57-58,
Date of publication	Feb 1992
Abstract	The mechanisms of arrhythmia in essential hypertension (HT) are poorly understood. The relative role of left ventricular hypertrophy (LVH) and myocardial ischemia were investigated in 16 pts. with LVH and normal coronary arteriogram (mean age 34 y, ranging from 19 to 49 y). LVH was due to HT in 11 pts. (mean BP= 125±19 mmHg and aortic stenosis 19 mmHg and aortic stenosis (AS) in 5 pts. LV mass (LVM) and wall thickness were estimated in all pts. by M-mode and 2D echocardiography. Coronary blood flow (CBF) was measured by coronary sinus catheterization (Baim catheters) using the thermodilution technique at rest and after IV dipyridamole (0.2 mg/kg/min for 4 minutes) to estimate coronary flow reserve (CFR) and coronary vasodilator reserve (CDR). Twenty four ambulatory ECG monitoring was applied for all pts. and ventricular arrhythmias recorded were classified accordingly into: Group I: Lown's 0-2 and group II, Lown's 3-5. Compared to group I, group II pts. had a higher LVM (mean= 340 ± 58 gm Vs a mean 231 ±29 gm in group I) while there were no significant difference in mean BP, CBF, CFR and CDR and CDR (P= NS) between both groups.

Original Title	**Asymptomatic arrhythmias in patients on chronic hemodialysis**
Author	Nour, T. Qaddah, Ayman Fatthi. Esmaeil, Z. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Annual Meeting'of the Egyptian Society of Cardiology. 19th. Cairo (Egypt). Feb 23-28, 1992 p59,
Date of publication	Feb 1992
Abstract	A high incidence of cardiac arrhythmias in hemodialysis patients had been associated with increased incidence of sudden death. 10 patients (4 males and 6 females), asymptomatic non-diabetic on regular hemodialysis treatment were studied for period ranging from 6 to 132 ECG monitor, starting 2 hours before dialysis, and lasting for 6 hours of dialysis, as well as 16 hours of dialysis, then after. Three patients developed premature ventricular contractions (PVCs) of Lown's grade I, and infrequent premature atrial contractions (PACs). One had only infrequent PACs and another had a ran of PACs. None of the patients had serious arrhythmia episodes. The occurrence of cardiac arrhythmias showed no specific myocardial episodes nor to the patients age, sex, duration on dialysis, left ventricular hypertrophy (LVH), blood urea nitrogen (BUM), serum creatinine, sodium potassium, calcium and phosphorus. It is concluded that chronic hemodialysis per sec. does not enhance the occurrence of cardiac arrhythmias, and that there was no way to predict patients at in: eased risk

Original Title	**Cardiac arrhythmia in hemodialysis patients**
Author	Abdel-Fattah, Mahmoud. Awadh, M. Reyadh, N.
Author affiliation	Ain-Shams Univ., Cairo (Egypt). Fac. of Med.
Source	International Annual Ain-Shams Medical Congress. 15th. Cairo (Egypt). Feb 21- 24, 1992... p399-404,
Date of publication	Feb 1992
Abstract	Twenty four hours ECG Holter monitoring was performed for 30 patients (pts.) (8 and 22 ; age : 17-57 yrs.) under RDT for a period of 4-71 m. Significant cardiac arrhythmia (ectopic beats in excess of 700 b./ 24 hrs and/or arrhythmia scale exceeding 2 Lown classification) were found in 9 pts. (30%). Serious arrhythmias as vent. salvos, tachycardia or torsade des points were not found, only one patient had vent. couplets.Comparison of the clinical data of the arrhythmic group (A) and the non-arryhthmic group (B) revealed a higher incidence of heart disease in group (A) i.e. resting ECG abnormality in 89% vs. 19%, increased CTR in 78% vs. 14%, hypertension in 67% vs. 28%, clinical IHD in 44% vs. 10%, CHF in 33% vs. 10% and digitalis intake in 33% vs. 10%. Furthermore, there was a significant positive correlation between the number of ectopic beats (atrial and vent.) and the CTR. Comparison of the biochemical data revealed a lower level of Hct value in group (A) i.e. 24.1% vs. 26.85%. There was no significant difference between the two groups regarding age, HD duration, syst. or diast. BP, urea, creatinine, Na + (before and after HD), K + (before and after HD), Ca ++, P04- 3 or alk. phosphatase. There was no significant difference in the incidence of ectopic beats between predialysis and hemodialysis hours, but it was lower during sleeping hours.

Original Title	**Arrhythmogenic potential of oral long-acting xanthines in chronic obstructive air-way disease**
Author	Azmi, H. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source	Conference information Annual Meeting of the Egyptian Society of Cardiology. 18th. Cairo (Egypt). Feb 18-22, 1991
Date of publication	Feb, 1991
Abstract	The effect of oral long-acting theophylline on cardiac arrhythmia was studied in 19 patients (mean age 62 years) with stable chronic obstructive air-way disease by continuous 24-hour ambulatory ECG monitoring. Suring the control period, 79% of the patients had some form of cardiac arrhythmia. The mean frequency of ventricular ectopic beats (VEBs) per hour was 53 (range : 1 to 500), that of premature atrial contractions (PACs) was 102 (range : 1 to 500), and the mean of heart rate was 35 beats per minute. Variable grades of ventricular arrhythmia were seen with occasional VEBs in 11 patients frequent 2, multiform in 2, couplets in 2, and short runs of ventricular tachycardia in only one. Six patients had occasional PACs, five had frequent PACs, and one had short runs of asymptomatic paroxysmal atrial tachycardia. During theophylline therapy, the mean heart rate increased to 101 beats per minute, the mean frequency of VEBs per hour increased to 34, whereas that of PACs decreased to 97 Although all patients received the same oral dose, serum theophylline levels ranged from 5.6 to 45 ug/ml. The mean grade of ventricular and atrial arrhythmias changed during theophylline therapy, but this change did not correlate with the serum drug level, arterial oxygen tension (PAo2), pH, serum potassium level, age or sex of the patients, number of ectopic beats during the control 24-hour monitoring, nor all of these factors combined together. We conclude that theophylline, as a single therapeutic agent maintained at therapeutic serum levels, seems unlikely to provoke significant ventricular ectopy or supraventricular arrhythmia in stable chronic obstructive airway disease patients who do not have a previous heart disease or an underlying cardiac arrhythmia.

Original Title	**Scanning electron microscopy of the endocardium ; A new technique for locating arrhythmogenic foci**
Author	Selim, N. M. Krosh, S. S. Nassr, M. A.
Author affiliation	Assiut Univ. (Egypt). Fac. of Med.
Source	Annual Meeting of the Egyptian Society of Cardiology. 17th. Cairo (Egypt). Feb 20-23,... p81-82, 1990
Date of publication	Feb 1990
Abstract	The site of origin and/or the pathways involved in maintenance of tachyarrhythmias (T) can be localized by endocardial mapping during electrophysiology studies. Areas of earliest recorded activity during T may not actually represent its site of origin. This study aims, at more accurate method of mapping by electron microscopic scanning of the endocardium in a trial, to find the possible ultrastructural counterparts of the arrhythmogenic foci in T. The endocardium of the atrial appendages and mitral valves of 16 patients with rheumatic heart (9 in AF and 7 in SR) resected during mitral valve replacement was scanned. SEM of the endocardium showed that the individual endothelial cells in patients with sinus rhythm (SR) to be basically almost similar in size and shape, polygonal, sometimes slightly elongated, flat with elevated nuclear region or bombayed. The endothelial surface was wither smooth or showed few short microvilli and microplicoe ; the cell boundaries were outlined by beaded cytoplasmic projections. The intercellular junctions were generally tight and well delineated. with atrial fibrillation (AF) althouqh with SR the following changes were met with ; elevation, elongation and sometimes disorientation of the endothelial cells, formation of microvilli-rich cell clusters and small to huge hollow surface defects. In addition interruption of the intercellular junctions with various degrees of severity, in several foci, was found. Rupture and sloughing ranged from focal area of few cells to larger areas of several cells, but are generally localized. The significance of these findings were discussed.

Original Title	**The arrhythmogenic effect of diuretic-induced hypokalemia in hypertensive patients, with or without left ventricular hypertrophy**
Author	El-Arousi, W. et al.
Author affiliation	Cairo Univ. (Egypt). Fac. of Med.
Source & Date	Conference information The Annual Meeting. 15th. Cairo (Egypt). Feb 1988
Abstract	In this study, the effects of short term (2-8 weeks) chlorthalidone and the induced hypokalemia on the ectopic ventricular activity in ten hypertensive patients were examined. The mean age was 37.7±5.96 years (mean±SD). There was one female and nine males. The mean SBP was 172±18.1 mmHg and DBP was 115±7.1 mmHg. The 24 hour Holter monitoring was used, and the treadmill exercise testing to evaluate cardiac arrhythmias. The level of serum magnesium in all patients was estimated. There was no increase in the ectopic ventricular activity neither before nor after the induced hypokalemia, in all patients except in one (10%). This increased activity of premature ventricular beats of grade 1 was abolished after the correction of hypokalemia. The serum potassium level dropped from a mean of 4.12±0.37 mEq/L of 2.83 ± 0.38 mEq/L (p <0.005), while the serum magnesium level did not change, mean of 20.84 + or2.22 mEq/L (P.N.S.). There was no corelation between the ventricular mass index, mean of 146.2±31.6 mg/m2 (P N.S.), measured by Mmode echocardiography and the increased ventricular ectopic activity. It was concluded that the hypokalemia induced by diuretic therapy does not essentially produce increase in the ventricular arrhythmias in hypertensive patients, and that the left ventricular hypertrophy had no influence either.

Original Title	**Detection of arrhythmias by 48-hours holter monitoring in patients with GOAD**
Author	El-Sherbini, M. et al.
Author affiliation	Ain-Shams Univ.. Cairo . Fac. of Med.
Source	Annual Ain-Shams Medical Congress. 11th. Cairo (Egypt).
Date	Mar 5-8, 1988 ... pl93-198,
Abstract	In this work, Holter monitoring & resting E.C.G. of 20 patients with G.O.A.D. were studied. Clinical diagnosis was supported by X-ray chest, blood gases & respiratory function tests. Ventricular premature beats & sinus tachycardia were the most common types of arrhythmias observed in this study. It is advisable to have Holter monitor recording for every patient with G.O.A.D. as a part of his clinical evaluation.

Original Title — **Bradyarrhythmias and conduction defects after surgery of congenital heart disease**

Author — Sharabi M. F. et al.

Author affiliation — Al-Azhar Univ., Cairo (Egypt). Fac. of Med.

Source & Date — The Egyptian Society of Cardiology Annual Meeting. 16th. Cairo (Egypt) Feb 21-24, 1989

Abstract — The prevalence of various forms of bradyarrhythmias and conduction impairment occurring after surgical correction of congenital heart disease (CHD) was studied prospectively in 59 patients (34 males) with a mean age of 14.2 years ±8.2 years (range from 3 to 45 years). Diagnosis included F4 (19 pts), V.S.D. (12 pts), A.S.D. (16 pts), pulmonary stenosis (7 pts), and subaortic membrane (5 pts). Surgical procedures performed included total correction, closure of VSD by a patch, closure of ASD by patch or direct suture, pulmonary valvotomy and subaortic membrane excision. Conduction defects were recorded in both the early (up to 8 days) as well as the late (from 8-90 days) postoperative periods, utilizing 2-hourly ECG monitoring and rhythm strips in the surgical ICU, daily 12-lead ECG during the hospital stay and subsequent follow up via 24 hour ambulatory ECG monitoring on occasions. In the early postoperative period, 20 patients (34%) had bradyarrhythmias including 15 patients with junctional or low atrial rhythm, and 5 patients with various degrees of heart block. In the late postoperative periods, conduction defects were present in 40 patients (68%), most commonly RBBB (in 32 patients, 54%), bifasciolar block (RBBB plus LAH) in 7 patients (11.7%) and LBBB in 1 patient (1.7%). Conduction defects were most prevalent with tetralogy of Fallot group (12 pts, 63.1%) while bradyarrhythmias were most prevalent in ASD group (7 pts, 43.8%). Temporary pacemakers were placed in 2 patients (3.4%) while permanent pacemakers have not been needed. The nature and prevalence of conduction defects occurring postoperatively in the patients did not seem to influence the natural history or ultimate outcome. The prevalence of bradyarrhythmias and conduction defects occurring postoperatively in these series in such varieties of congenital heart disease as F4, VSD, ASD, etc. were comparable to series published elsewhere. The rarely performed complex surgical procedures known to predispose to bradyarrhythmias and conduction defects and the improved surgical technique may underlie this fact.

Original Title	**Dual chamber activity sensing rate responsive pacemakers in infancy, childhood and adolescence; early results and short term follow up**
Author	El-Ghaffari, Eisam. Hetherimgton, P. Walsh, K.
Source & Date	Annual Meeting of the Egyptian Society of Cardiology. 18th. Cairo (Egypt). Feb 18-22, 1991
Abstract	Seven Medtronic Dual Chamber Rate Response Pacemakers (4 Elite and 3 Synergist 11) were implanted in patients aged 6 months to 17 years with a mean age of 8.8 years. One female and six males. All patients presented with either congenital or acquired heart disease with various degrees of heart block. Five devices were implanted endocardially and two epicardially. There were two deaths unrelated to pacing, one at six weeks while awaiting cardiac transplantation, the other at one month through non-pacemaker related causes. The follow up included assessing vital activity and intellectual powers of the patient. Cardiac function was improved without any symptoms related to the original illness. ECG and assessment of pacemaker function indicated correct sensing and pacing and appropriate rate respose. Echocardiography and Doppler studies showed reasonable cardiac function and Doppler profiles across the cardiac valves.

Original Title	**Effect of various atribventricular delays on cardiac systolic and diastolic functions ; An echo-Doppler assessment**
Author	Helmi,, M. G. Shahwan, M. L. Hashem, A. A. et al.
Source & Date	Egyptian Society of Cardiology, Cairo (Egypt) Annual Meeting of the Egyptian Society of Cardiology. 19th. Cairo (Egypt). Feb 23-28, 1992 p55-56, Feb 1992.
Abstract	In the presence of normal, SA node function, VDD mode, is often the most efficient means to pace the heart in a truly physiological pattern. In this study, Doppler echocardiography has been used to assess, at rest, both cardiac systolic and diastolic functions during VDD mode of pacing of different atrioventricular delays (AVD) and WI mode at the same rate. Ten patients with CHB (7 F. and 3 M., mean age ± 13.2 years, NYHA class I-II) were studied. In conclusion, this study confirms the hemodynamic benefit gained by patients with complete heart block from the dual chamber mode of pacing, and demonstrates the simplicity, reliability and reproducibility of the echo-Doppler study in assessment of myocardial performance and the necessity of atrial systole. The study also stressed the importance of a properly timed atrial contraction, and that there is an optimal AV delay at which myocardial function is at its maximum. Finally, the interindividual variability of the optimal AV delay has been confirmed.

Original Title	**Multiprogrammable, rate responsive, AV sequential pacing ; preimplantation assessment of haemodynamic effects**
Author	Abdel-Aziz, A. et al.
Source & Date	The Egyptian Society of Cardiology, Cairo (Egypt) Annual Meeting of the Egyptian Society of Cardiology. 18th. Cairo (Egypt). Feb 18-22, 1991 pl9, Feb 18-22, 1991
Abstract	Previous studies from the Critical Care Center (C.C.C.) following implantation of permanent pacemaker (PPM) have shown that the advantages of the so called physiologic pacing are not always justified by the cost involved. The aim of the present work is to select the appropriate mode of pacing for every individual patient through preimplantation assessment. The present work has been conducted on 32 patients (16 M, 16 F) all have symptomatic bradycardia (complete heart block, sinus bradycardia, AF with high grade block, S.S.S.). Prior to implantation all patients had a temporary atrial at ventricular leads inserted percutaneously through the femoral and/or subclavian vein. Preimplantation assessment included : 1- Measurement of resting cardiac output (COP) by transthoracic electrical impedance (TEI) : A. at various heart rates (HR) starting with 70/min. with construction of HR-COP curve and obtaining an optimal HR. B-at optimal HR+ atrial contribution (in sequential pacing). II-effort tolerance (ET) was assessed by Treadmill testing (modified to fit every pt) and expressed as time spent on the Treadmill at: A-Simple pacing at 70 bpm and optimal HR. B-Simple pacing with progressively increasing HR from 70 to 120 bpm at one min. interval (simulating rate responsive pacing). C-Sequential pacing at optimal HR. According to the results of the above mentioned tests, pateints were divided into three categories : 1- Those whom optimal COP was uninfluenced by rate and atrial kick had simple W IPM. 2- Those whom required the atrial contribution with or without an adjustable rate for an optimal ET had dual chamber PM. 3- Those whom optimal COP and ET depended only on HR were offered a multiprogrammable PM with rate adjusted to optimal HR or a rate responsive PM (depending on age, physical activity and job).

Original Title	**Pacemaker therapy for treatment of supraventricular tachycardia; first Egyptian experience**
Author	Hammouda, M. A. El-Aasar, H. A. Mukhtar, M. S.
Source & Date	The Egyptian Society of Cardiology, Cairo (Egypt) Annual Meeting of the Egyptian Society of Cardiology. 18th. Cairo' (Egypt). Feb 18-22, 1991. Annual Meeting ... pl4, Feb 18-22, 1991
Abstract	Symptomatic SVT utilizing and AV bypass tract should ideally be treated by radical resection of the accessory pathway (AP). Antitachycardiac devices could be used in refractory SVT to terminate attacks by Al-Azhar variety of mechanisms, whenever surgery is contraindicated and medical treatment is not effective. The present study records our experience with simple PM implantation for termination of SVT by underdrive pacing rather than antitachycardiac devices. Thirty patients with reentrant SVT due to AP have been studied in the mechanism of SVT has been documented and the AP strictly localized. Of the latter, 11 patients were subjected to surgical resection and 11 patients were medically treated. The remaining 8 patients constituting the material of the present study (5 M, 3 f mean age 32 years) were subjected to permenant implantation of WIPM, rather than antitachycardiac device. Following initiation of SVT by either atrial or ventricular extra-stimulation, termination was attempted by ventricular underdrive pacing at cycle lengths of (600850) msec. i.e. rate 100-70/ min). Termination by underdrive pacing had to be consistently reproducible at least 10 times under different circumstances. Responders were subsequently subjected to implantation of simple W IPM (on patient) or multiprogrammable PM, which when activated, terminates the SVT. Out of the 8 patients, 4 patients consistently showed persistent termination of SVT by underdrive pacing, 3 patients responded only after addition of an antiarrhythmic drug, and one patient was non responder.

Original Title	**Post-operative dysrhythmias after intracardiac repair of tetralogy of Fallot**
Author	Abdel-Dayem, Muhammad Khayri. Awadh, Aumar Salah Shahin, Sameh Muhammad
Source & Date	The Egyptian Society of Cardiology, Cairo (Egypt) The Annual Meeting. 15th. Cairo (Egypt). Feb 1988 The Bulletin of the Egyptian Society of Cardiology. v29 Jun 1988
Abstract	The nature and prevalence of conduction defects and arrhythmias both before and after surgical correction of tetralogy of Fallot (TOF) were studied in 35 patients using resting 12-lead ECG and ambulatory 24-h. ECG monitoring. Twenty patients (aged 3 months to 32 years) had not yet undergone repair (group l) and 15 others (aged 5.5 to 16 years) were studied 6 months to 3 years after surgical repair (group 2). Mone of the patients in group 1 showed significant conduction defects or ventricular arrhythmias (VA). In group 2 complete RBBB occurred in 80%, bifascicular block in 6.69, complete AV block in 13.3% and significant VA in 33.3% of patients. Significant VA was related to higher age at operation and longer interval after surgery. Thus, patients with TOF should be operated upon within the first few years of life and ambulatory 24-h. ECG monitoring should be included in their postoperative assessment.

مطابع جامعة الزقازيق